THE QUALITY CHICKEN PEOPLE

ALLEN FAMILY FOODS, INC.
P.O. BOX 63
HARBESON, DE 19951
302/684-1640 FAX: 302/684-1638

April 26, 2004

**CERTIFIED MAIL** **7001 2510 0007 7810 0470**

Delaware Department of Natural Resources
and Environmental Control
Division of Water Resources
89 Kings Highway
Dover, DE 19903

Attn: Mr. Peder Hansen
Program Manager

Re: NPDES Permit No. DE 0000299
Allen Family Foods – Harbeson, DE

Subject: NPDES Renewal Application

Dear Mr. Hansen:

Enclosed you will find the application for re-issuance of the NPDES permit to discharge treated process water and storm water to Beaverdam Creek. Our bioassay results for the April 2004 chronic test are not available yet and will be submitted under separate cover.

If you have any questions, please do not hesitate to contact me at (302) 684-1640 x184.

Respectfully submitted,
ALLEN FAMILY FOODS, INC.

Steve Hudson
Environmental Manager

Please print or type in the unshaded areas only
*(fill—in areas are spaced for elite type, i.e., 12 characters/inch).*

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

# GENERAL INFORMATION

*Consolidated Permits Program*

*(Read the "General Instructions" before starting.)*

I. EPA I.D. NUMBER

F

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill—in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

## II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold—faced terms.

| SPECIFIC QUESTIONS | MARK 'X' YES | NO | FORM ATTACHED |
|---|---|---|---|
| A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A) | | X | |
| B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge to waters of the U.S.**? (FORM 2B) | | X | |
| C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C) | X | | |
| D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D) | | X | |
| E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3) | | X | |
| F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4) | | X | |
| G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4) | | X | |
| H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4) | | X | |
| I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | X | |
| J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | X | |

## III. NAME OF FACILITY

1 SKIP: ALLEN FAMILY FOODS INC.

## IV. FACILITY CONTACT

| A. NAME & TITLE *(last, first, & title)* | B. PHONE *(area code & no.)* |
|---|---|
| 2 HUDSON, STEVE, ENVIRONMENTAL MGR. | 302 684 1640 |

## V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 PO BOX 63

| B. CITY OR TOWN | C. STATE | D. ZIP CODE |
|---|---|---|
| 4 HARBESON | DE | 19951 |

## VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 ROUTE 5

B. COUNTY NAME

SUSSEX

| C. CITY OR TOWN | D. STATE | E. ZIP CODE | F. COUNTY CODE *(if known)* |
|---|---|---|---|
| 6 HARBESON | DE | 19951 | |



CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

## VII. SIC CODES (4-digit, in order of priority)

| A. FIRST | B. SECOND |
|---|---|
| 2015 (specify) POULTRY PROCESSING | (specify) |
| **C. THIRD** | **D. FOURTH** |
| (specify) | (specify) |

## VIII. OPERATOR INFORMATION

**A. NAME**

ALLEN FAMILY FOODS, INC.

**B. Is the name listed in Item VIII-A also the owner?** ☒ YES ☐ NO

**C. STATUS OF OPERATOR** (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL S = STATE P = PRIVATE M = PUBLIC (other than federal or state) O = OTHER (specify)

P (specify)

**D. PHONE** (area code & no.) 302 629 9163

**E. STREET OR P.O. BOX**

PO BOX 240

**F. CITY OR TOWN** SEAFORD

**G. STATE** DE

**H. ZIP CODE** 19973

## IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☒ NO

## X. EXISTING ENVIRONMENTAL PERMITS

| A. NPDES (Discharges to Surface Water) | D. PSD (Air Emissions from Proposed Sources) |
|---|---|
| N 0000299-001 | P |
| **B. UIC** (Underground Injection of Fluids) | **E. OTHER** (specify) |
| U | (specify) |
| **C. RCRA** (Hazardous Wastes) | **E. OTHER** (specify) |
| R | (specify) |

## XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

## XII. NATURE OF BUSINESS (provide a brief description)

RAISE, SLAUGHTER AND OTHERWISE PROVIDE POULTRY FOR HUMAN CONSUMPTION

## XIII. CERTIFICATION (see instructions)

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

| A. NAME & OFFICIAL TITLE (type or print) | B. SIGNATURE | C. DATE SIGNED |
|---|---|---|
| STEVE HUDSON<br>ENVIRONMENTAL MANAGER | Steve Hudson | 4/20/04 |

**COMMENTS FOR OFFICIAL USE ONLY**

C

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1): DE 0000299-001

Form Approved. OMB No. 2040-0086. Approval expires 8-31-98.

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
*Consolidated Permits Program*

## I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

| A. OUTFALL NUMBER (list) | B. LATITUDE 1. DEG. | 2. MIN. | 3. SEC. | C. LONGITUDE 1. DEG. | 2. MIN. | 3. SEC. | D. RECEIVING WATER (name) |
|---|---|---|---|---|---|---|---|
| 001 | 38 | 43 | 11 | 75 | 17 | 22 | BEAVER DAM BRANCH |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

## II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

| 1. OUTFALL NO. (list) | 2. OPERATION(S) CONTRIBUTING FLOW a. OPERATION (list) | b. AVERAGE FLOW (include units) | 3. TREATMENT a. DESCRIPTION | b. LIST CODES FROM TABLE 2C-1 | |
|---|---|---|---|---|---|
| 001 | PROCESSING OPERATION | 1.20 MGD | SCREENING | 1 | T |
| | SANITARY WASTE | 0.05 MGD | GRIT REMOVAL | 1 | M |
| | STORM WATER RUNOFF | 0.20 MGD | GREASE FLOATATION | 1 | H |
| | TOTAL | 1.45 MGD | COAGULATION | 2 | D |
| | | | ANAEROBIC LAGOON | 3 | C |
| | | | ACTIVATED SLUDGE | 3 | A |
| | | | NITRIFICATION - DENITRIFICATION | 3 | D |
| | | | DISINFECTION | 2 | F |
| | | | AEROBIC DIGESTION | 5 | A |
| | | | FLOATATION THICKENING | 5 | J |
| | | | LAND APPLICATION | 5 | P |
| | | | DECHLORINATION | 2 | E |
| 002 | STORM WATER RUNOFF | | GRIT REMOVAL | 1 | M |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*



CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES *(complete the following table)* ☒ NO *(go to Section III)*

| 1. OUTFALL NUMBER *(list)* | 2. OPERATION(s) CONTRIBUTING FLOW *(list)* | 3. FREQUENCY | | 4. FLOW | | | | |
|---|---|---|---|---|---|---|---|---|
| | | a. DAYS PER WEEK *(specify average)* | b. MONTHS PER YEAR *(specify average)* | a. FLOW RATE *(in mgd)* | | b. TOTAL VOLUME *(specify with units)* | | c. DURATION *(in days)* |
| | | | | 1. LONG TERM AVERAGE | 2. MAXIMUM DAILY | 1. LONG TERM AVERAGE | 2. MAXIMUM DAILY | |
| | | | | | | | | |

## III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES *(complete Item III-B)* ☐ NO *(to to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☐ YES *(complete Item III-C)* ☒ NO *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

| 1. AVERAGE DAILY PRODUCTION | | | 2. AFFECTED OUTFALLS *(list outfall numbers)* |
|---|---|---|---|
| a. QUANTITY PER DAY | b. UNITS OF MEASURE | c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)* | |
| | | | |

## IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES *(complete the following table)* ☒ NO *(go to Item IV-B)*

| 1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC. | 2. AFFECTED OUTFALLS | | 3. BRIEF DESCRIPTION OF PROJECT | 4. FINAL COMPLIANCE DATE | |
|---|---|---|---|---|---|
| | a. NO. | b. SOURCE OF DISCHARGE | | a. REQUIRED | b. PROJECTED |
| | | | | | |

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (copy from Item 1 of Form 1)
DE 0000299-001

## V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession. N/A

| 1. POLLUTANT | 2. SOURCE | 1. POLLUTANT | 2. SOURCE |
|---|---|---|---|
| | | | |

## VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES *(list all such pollutants below)* ☒ NO *(go to Item VI-B)*

CONTINUED FROM THE FRONT

## VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ YES *(identify the test(s) and describe their purposes below)* ☐ NO *(go to Section VIII)*

PER SECTION A, SPECIAL CONDITIONS, #3, OF OUR PERMIT, WE CONDUCTED A ONE-TIME CHRONIC BIOMONITORING TEST ON EFFLUENT IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN CFR (40 CFR 136).

## VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ NO *(go to Section IX)*

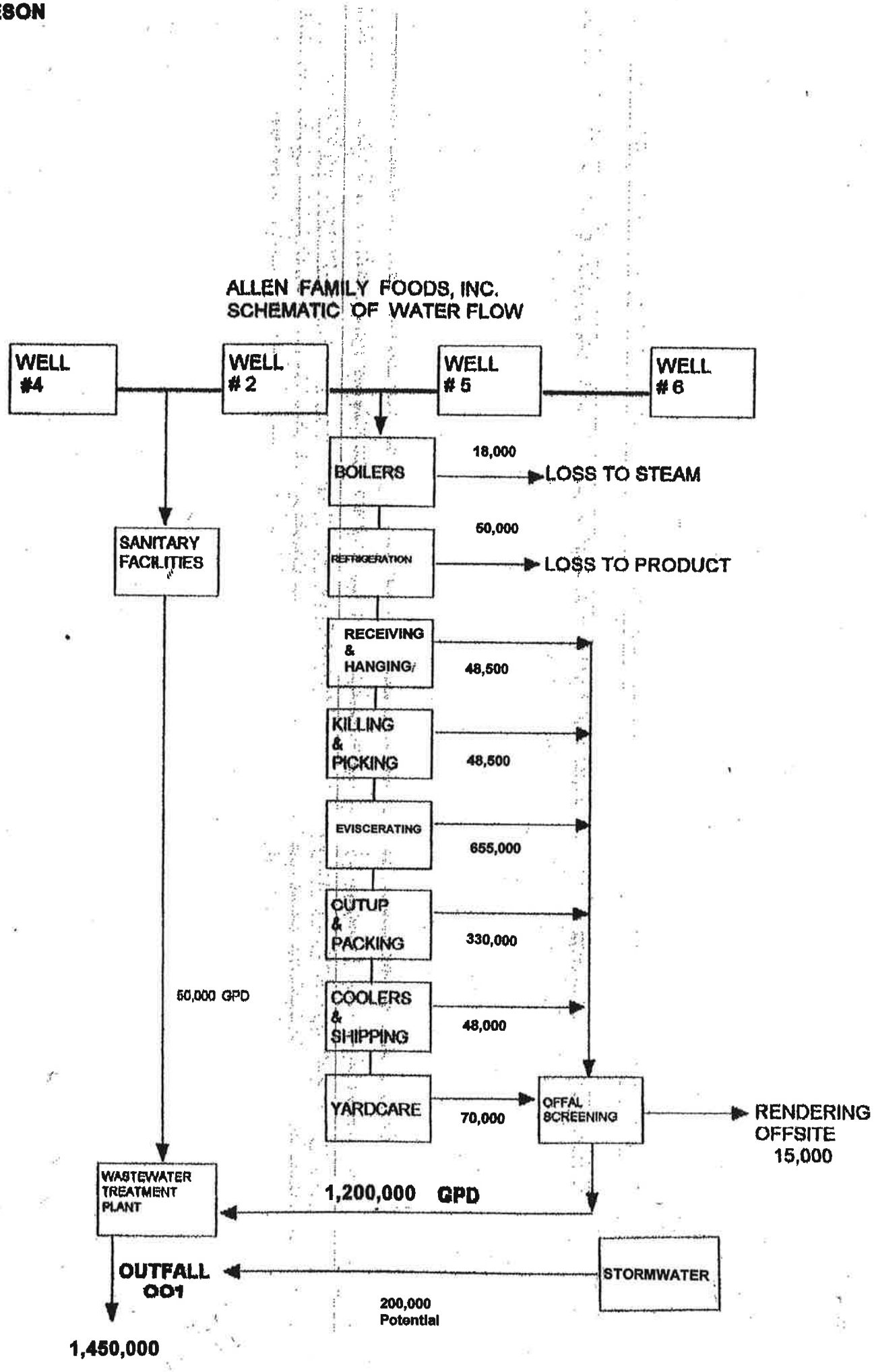
| A. NAME | B. ADDRESS | C. TELEPHONE (area code & no.) | D. POLLUTANTS ANALYZED (list) |
|---|---|---|---|
| ENVIROCORP, INC. | 14 COMMERCE STREET HARRINGTON, DE 19952 | (302) 398-4313 | $BOD_5$ COD TSS AMMONIA ENTEROCOCCUS TKN ORTHO-P NITRATE NITRITE O&G T. PHOS. |

## IX. CERTIFICATION

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

| A. NAME & OFFICIAL TITLE *(type or print)* | B. PHONE NO. *(area code & no.)* |
|---|---|
| STEVE HUDSON, ENVIRONMENTAL MANAGER | (302) 684-1640 x 184 |
| **C. SIGNATURE** | **D. DATE SIGNED** |
| St Hudson | 4/20/04 |

HARBESON


ALLEN FAMILY FOODS, INC.
SCHEMATIC OF WATER FLOW
WELL #4
WELL #2
WELL #5
WELL #6
BOILERS
18,000
LOSS TO STEAM
SANITARY FACILITIES
REFRIGERATION
50,000
LOSS TO PRODUCT
RECEIVING & HANGING
48,500
KILLING & PICKING
48,500
EVISCERATING
655,000
CUTUP & PACKING
330,000
50,000 GPD
COOLERS & SHIPPING
48,000
YARDCARE
70,000
OFFAL SCREENING
RENDERING OFFSITE
15,000
WASTEWATER TREATMENT PLANT
1,200,000 GPD
OUTFALL 001
STORMWATER
200,000
Potential
1,450,000

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: DE 0000299

**V. INTAKE AND EFFLUENT CHARACTERISTICS** *(continued from page 3 of Form 2-C)* — OUTFALL NO. 001

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

| 1. POLLUTANT | 2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | a. MAXIMUM DAILY VALUE (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | b. MAXIMUM 30 DAY VALUE (if available) (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | c. LONG TERM AVRG. VALUE (if available) (2) MASS | d. NO. OF ANALYSES | 3. UNITS (specify if blank) a. CONCENTRATION | 3. UNITS b. MASS | 4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | 4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS | 4. INTAKE b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Biochemical Oxygen Demand *(BOD)* | 15 | 182 | | | 3.41 | 29.9 | 104 | mg/L | LB/DAY | | | |
| b. Chemical Oxygen Demand *(COD)* | 14 | 170 | | | | | 1 | mg/L | LB/DAY | | | |
| c. Total Organic Carbon *(TOC)* | 3.1 | 38 | | | | | 1 | mg/L | LB/DAY | | | |
| d. Total Suspended Solids *(TSS)* | 20 | 242 | | | | | 104 | mg/L | LB/DAY | | | |
| e. Ammonia *(as N)* | 2.7 | 33 | | | | | 104 | mg/L | LB/DAY | | | |
| f. Flow | VALUE 1.45 | | VALUE 1.25 | | VALUE 1.05 | | 365 | MGD | | VALUE | | |
| g. Temperature *(winter)* | VALUE 7.5 | | VALUE | | VALUE | | 365 | °C | | VALUE | | |
| h. Temperature *(summer)* | VALUE 27 | | VALUE | | VALUE | | 365 | °C | | VALUE | | |
| i. pH | MINIMUM 6 | MAXIMUM 9 | MINIMUM 6.0 | MAXIMUM 6.8 | | | 365 | STANDARD UNITS | | | | |

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NO. *(if available)* | 2. MARK 'X' a. BELIEVED PRESENT | 2. MARK 'X' b. BELIEVED ABSENT | 3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | a. MAXIMUM DAILY VALUE (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | b. MAXIMUM 30 DAY VALUE (if available) (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | c. LONG TERM AVRG. VALUE (if available) (2) MASS | d. NO. OF ANALYSES | 4. UNITS a. CONCENTRATION | 4. UNITS b. MASS | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | 5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS | 5. INTAKE b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. Bromide (24959-67-9) | | X | | | | | | | | | | | | |
| b. Chlorine, Total Residual | X | | <0.1 | <2 | <0.1 | | <0.1 | <2 | 365 | mg/L | LB/DAY | | | |
| c. Color | | X | | | | | | | | | | | | |
| d. Fecal Coliform | X | | 200 | | 35 | | | | 52 | COUNT PER DL | | | | |
| e. Fluoride (16984-48-8) | | X | | | | | | | | | | | | |
| f. Nitrate–Nitrite *(as N)* | X | | 25 | 302 | | | | | 52 | mg/L | | | | |

ITEM V-B CONTINUED FROM FRONT

| 1. POLLUTANT AND CAS NO. (If available) | 2. MARK 'X' | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. BELIEVED PRESENT | b. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE (1) CONCENTRATION | a. MAXIMUM DAILY VALUE (2) MASS | b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION | b. MAXIMUM 30 DAY VALUE (If available) (2) MASS | c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION | c. LONG TERM AVRG. VALUE (If available) (2) MASS | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | a. LONG TERM AVERAGE VALUE (2) MASS | b. NO. OF ANALYSES |
| g. Nitrogen, Total Organic (as N) | X | | 2.0 | 215 | | | | | 52 | | | | | |
| h. Oil and Grease | X | | ≤1.0 | 8.6 | | | ≤1.0 | 8.6 | 156 | mg/L | LB/DAY | | | |
| i. Phosphorus (as P), Total (7723-14-0) | X | | 3.0 | 37 | | | 0.48 | 4.2 | 104 | mg/L | LB/DAY | | | |
| j. Radioactivity | | | | | | | | | | | | | | |
| (1) Alpha, Total | | X | | | | | | | | | | | | |
| (2) Beta, Total | | X | | | | | | | | | | | | |
| (3) Radium, Total | | X | | | | | | | | | | | | |
| (4) Radium 226, Total | | X | | | | | | | | | | | | |
| k. Sulfate (as $SO_4$) (14808-79-8) | | X | | | | | | | | | | | | |
| l. Sulfide (as S) | | X | | | | | | | | | | | | |
| m. Sulfite (as $SO_3$) (14265-45-3) | | X | | | | | | | | | | | | |
| n. Surfactants | | X | | | | | | | | | | | | |
| o. Aluminum, Total (7429-90-5) | | X | | | | | | | | | | | | |
| p. Barium, Total (7440-39-3) | | X | | | | | | | | | | | | |
| q. Boron, Total (7440-42-8) | | X | | | | | | | | | | | | |
| r. Cobalt, Total (7440-48-4) | | X | | | | | | | | | | | | |
| s. Iron, Total (7439-89-6) | | X | | | | | | | | | | | | |
| t. Magnesium, Total (7439-95-4) | | X | | | | | | | | | | | | |
| u. Molybdenum, Total (7439-98-7) | | X | | | | | | | | | | | | |
| v. Manganese, Total (7439-96-5) | | X | | | | | | | | | | | | |
| w. Tin, Total (7440-31-5) | | X | | | | | | | | | | | | |
| x. Titanium, Total (7440-32-6) | | X | | | | | | | | | | | | |

| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
|---|---|
| DE 0000299 | 001 |

CONTINUED FROM PAGE 3 OF FORM 2-C

**PART C -** If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

| 1. POLLUTANT AND CAS NUMBER (If available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | d. NO. OF ANALYSES | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (If available) | | c. LONG TERM AVRG. VALUE (If available) | | | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| **METALS, CYANIDE, AND TOTAL PHENOLS** | | | | | | | | | | | | | | | |
| 1M. Antimony, Total (7440-36-0) | | | X | | | | | | | | | | | | |
| 2M. Arsenic, Total (7440-38-2) | | | X | | | | | | | | | | | | |
| 3M. Beryllium, Total, 7440-41-7) | | | X | | | | | | | | | | | | |
| 4M. Cadmium, Total (7440-43-9) | | | X | | | | | | | | | | | | |
| 5M. Chromium, Total (7440-47-3) | | | X | | | | | | | | | | | | |
| 6M. Copper, Total (7440-50-8) | | | X | | | | | | | | | | | | |
| 7M. Lead, Total (7439-92-1) | | | X | | | | | | | | | | | | |
| 8M. Mercury, Total (7439-97-6) | | | X | | | | | | | | | | | | |
| 9M. Nickel, Total (7440-02-0) | | | X | | | | | | | | | | | | |
| 10M. Selenium, Total (7782-49-2) | | | X | | | | | | | | | | | | |
| 11M. Silver, Total (7440-22-4) | | | X | | | | | | | | | | | | |
| 12M. Thallium, Total (7440-28-0) | | | X | | | | | | | | | | | | |
| 13M. Zinc, Total (7440-66-6) | | | X | | | | | | | | | | | | |
| 14M. Cyanide, Total (57-12-5) | | | X | | | | | | | | | | | | |
| 15M. Phenols, Total | | | X | | | | | | | | | | | | |
| **DIOXIN** | | | | | | | | | | | | | | | |
| 2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6) | | | X | DESCRIBE RESULTS | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (If available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE (1) CONCENTRATION | a. MAXIMUM DAILY VALUE (2) MASS | b. MAXIMUM 30 DAY VALUE (If available) (1) CONCENTRATION | b. MAXIMUM 30 DAY VALUE (If available) (2) MASS | c. LONG TERM AVRG. VALUE (If available) (1) CONCENTRATION | c. LONG TERM AVRG. VALUE (If available) (2) MASS | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | a. LONG TERM AVERAGE VALUE (2) MASS | b. NO. OF ANALYSES |
| **GC/MS FRACTION – VOLATILE COMPOUNDS** | | | | | | | | | | | | | | | |
| 1V. Acrolein (107-02-8) | | | X | | | | | | | | | | | | |
| 2V. Acrylonitrile (107-13-1) | | | X | | | | | | | | | | | | |
| 3V. Benzene (71-43-2) | | | X | | | | | | | | | | | | |
| 4V. Bis *(Chloromethyl)* Ether (542-88-1) | | | X | | | | | | | | | | | | |
| 5V. Bromoform (75-25-2) | | | X | | | | | | | | | | | | |
| 6V. Carbon Tetrachloride (56-23-5) | | | X | | | | | | | | | | | | |
| 7V. Chlorobenzene (108-90-7) | | | X | | | | | | | | | | | | |
| 8V. Chlorodibromomethane (124-48-1) | | | X | | | | | | | | | | | | |
| 9V. Chloroethane (75-00-3) | | | X | | | | | | | | | | | | |
| 10V. 2-Chloroethylvinyl Ether (110-75-8) | | | X | | | | | | | | | | | | |
| 11V. Chloroform (67-66-3) | | | X | | | | | | | | | | | | |
| 12V. Dichlorobromomethane (75-27-4) | | | X | | | | | | | | | | | | |
| 13V. Dichlorodifluoromethane (75-71-8) | | | X | | | | | | | | | | | | |
| 14V. 1,1-Dichloroethane (75-34-3) | | | X | | | | | | | | | | | | |
| 15V. 1,2-Dichloroethane (107-06-2) | | | X | | | | | | | | | | | | |
| 16V. 1,1-Dichloroethylene (75-35-4) | | | X | | | | | | | | | | | | |
| 17V. 1,2-Dichloropropane (78-87-5) | | | X | | | | | | | | | | | | |
| 18V. 1,3-Dichloropropylene (542-75-6) | | | X | | | | | | | | | | | | |
| 19V. Ethylbenzene (100-41-4) | | | X | | | | | | | | | | | | |
| 20V. Methyl Bromide (74-83-9) | | | X | | | | | | | | | | | | |
| 21V. Methyl Chloride (74-87-3) | | | X | | | | | | | | | | | | |

CONTINUED FROM PAGE V-4

| 1. POLLUTANT AND CAS NUMBER (If available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (If available) | | c. LONG TERM AVRG. VALUE (If available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| **GC/MS FRACTION – VOLATILE COMPOUNDS** *(continued)* | | | | | | | | | | | | | | | |
| 22V. Methylene Chloride (75-09-2) | | | X | | | | | | | | | | | | |
| 23V. 1,1,2,2-Tetrachloroethane (79-34-5) | | | X | | | | | | | | | | | | |
| 24V. Tetrachloroethylene (127-18-4) | | | X | | | | | | | | | | | | |
| 25V. Toluene (108-88-3) | | | X | | | | | | | | | | | | |
| 26V. 1,2-Trans-Dichloroethylene (156-60-5) | | | X | | | | | | | | | | | | |
| 27V. 1,1,1-Trichloroethane (71-55-6) | | | X | | | | | | | | | | | | |
| 28V. 1,1,2-Trichloroethane (79-00-5) | | | X | | | | | | | | | | | | |
| 29V. Trichloroethylene (79-01-6) | | | X | | | | | | | | | | | | |
| 30V. Trichlorofluoromethane (75-69-4) | | | X | | | | | | | | | | | | |
| 31V. Vinyl Chloride (75-01-4) | | | X | | | | | | | | | | | | |
| **GC/MS FRACTION – ACID COMPOUNDS** | | | | | | | | | | | | | | | |
| 1A. 2-Chlorophenol (95-57-8) | | | X | | | | | | | | | | | | |
| 2A. 2,4-Dichlorophenol (120-83-2) | | | X | | | | | | | | | | | | |
| 3A. 2,4-Dimethylphenol (105-67-9) | | | X | | | | | | | | | | | | |
| 4A. 4,6-Dinitro-O-Cresol (534-52-1) | | | X | | | | | | | | | | | | |
| 5A. 2,4-Dinitrophenol (51-28-5) | | | X | | | | | | | | | | | | |
| 6A. 2-Nitrophenol (88-75-5) | | | X | | | | | | | | | | | | |
| 7A. 4-Nitrophenol (100-02-7) | | | X | | | | | | | | | | | | |
| 8A. P-Chloro-M-Cresol (59-50-7) | | | X | | | | | | | | | | | | |
| 9A. Pentachlorophenol (87-86-5) | | | X | | | | | | | | | | | | |
| 10A. Phenol (108-95-2) | | | X | | | | | | | | | | | | |
| 11A. 2,4,6-Trichlorophenol (88-06-2) | | | X | | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (If available) | 2. MARK 'X' a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | 3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | (2) MASS | d. NO. OF ANALYSES | 4. UNITS a. CONCENTRATION | b. MASS | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS | | | | | | | | | | | | | | | |
| 1B. Acenaphthene (83-32-9) | | | X | | | | | | | | | | | | |
| 2B. Acenaphtylene (208-96-8) | | | X | | | | | | | | | | | | |
| 3B. Anthracene (120-12-7) | | | X | | | | | | | | | | | | |
| 4B. Benzidine (92-87-5) | | | X | | | | | | | | | | | | |
| 5B. Benzo *(a)* Anthracene (56-55-3) | | | X | | | | | | | | | | | | |
| 6B. Benzo *(a)* Pyrene (50-32-8) | | | X | | | | | | | | | | | | |
| 7B. 3,4-Benzo-fluoranthene (205-99-2) | | | X | | | | | | | | | | | | |
| 8B. Benzo *(ghi)* Perylene (191-24-2) | | | X | | | | | | | | | | | | |
| 9B. Benzo *(k)* Fluoranthene (207-08-9) | | | X | | | | | | | | | | | | |
| 10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1) | | | X | | | | | | | | | | | | |
| 11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4) | | | X | | | | | | | | | | | | |
| 12B. Bis *(2-Chloroiso-propyl)* Ether (102-60-1) | | | X | | | | | | | | | | | | |
| 13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7) | | | X | | | | | | | | | | | | |
| 14B. 4-Bromo-phenyl Phenyl Ether (101-55-3) | | | X | | | | | | | | | | | | |
| 15B. Butyl Benzyl Phthalate (85-68-7) | | | X | | | | | | | | | | | | |
| 16B. 2-Chloro-naphthalene (91-58-7) | | | X | | | | | | | | | | | | |
| 17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3) | | | X | | | | | | | | | | | | |
| 18B. Chrysene (218-01-9) | | | X | | | | | | | | | | | | |
| 19B. Dibenzo *(a,h)* Anthracene (53-70-3) | | | X | | | | | | | | | | | | |
| 20B. 1,2-Dichloro-benzene (95-50-1) | | | X | | | | | | | | | | | | |
| 21B. 1,3-Dichloro-benzene (541-73-1) | | | X | | | | | | | | | | | | |



CONTINUE ON PAGE V-7

CONTINUED FROM PAGE V-6

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | 3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION | (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | (2) MASS | d. NO. OF ANALYSES | 4. UNITS a. CONCENTRATION | b. MASS | 5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS** *(continued)* | | | | | | | | | | | | | | | |
| 22B. 1,4-Dichlorobenzene (106-46-7) | | | X | | | | | | | | | | | | |
| 23B. 3,3'-Dichlorobenzidine (91-94-1) | | | X | | | | | | | | | | | | |
| 24B. Diethyl Phthalate (84-66-2) | | | X | | | | | | | | | | | | |
| 25B. Dimethyl Phthalate (131-11-3) | | | X | | | | | | | | | | | | |
| 26B. Di-N-Butyl Phthalate (84-74-2) | | | X | | | | | | | | | | | | |
| 27B. 2,4-Dinitrotoluene (121-14-2) | | | X | | | | | | | | | | | | |
| 28B. 2,6-Dinitrotoluene (606-20-2) | | | X | | | | | | | | | | | | |
| 29B. Di-N-Octyl Phthalate (117-84-0) | | | X | | | | | | | | | | | | |
| 30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7) | | | X | | | | | | | | | | | | |
| 31B. Fluoranthene (206-44-0) | | | X | | | | | | | | | | | | |
| 32B. Fluorene (86-73-7) | | | X | | | | | | | | | | | | |
| 33B. Hexachlorobenzene (118-74-1) | | | X | | | | | | | | | | | | |
| 34B. Hexachlorobutadiene (87-68-3) | | | X | | | | | | | | | | | | |
| 35B. Hexachlorocyclopentadiene (77-47-4) | | | X | | | | | | | | | | | | |
| 36B. Hexachloroethane (67-72-1) | | | X | | | | | | | | | | | | |
| 37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5) | | | X | | | | | | | | | | | | |
| 38B. Isophorone (78-59-1) | | | X | | | | | | | | | | | | |
| 39B. Naphthalene (91-20-3) | | | X | | | | | | | | | | | | |
| 40B. Nitrobenzene (98-95-3) | | | X | | | | | | | | | | | | |
| 41B. N-Nitrosodimethylamine (62-75-9) | | | X | | | | | | | | | | | | |
| 42B. N-Nitrosodi-N-Propylamine (621-64-7) | | | X | | | | | | | | | | | | |

CONTINUED FROM THE FRONT

| 1. POLLUTANT AND CAS NUMBER (If available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE | | b. MAXIMUM 30 DAY VALUE (if available) | | c. LONG TERM AVRG. VALUE (if available) | | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE | | b. NO. OF ANALYSES |
| | | | | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | (1) CONCENTRATION | (2) MASS | | | | (1) CONCENTRATION | (2) MASS | |
| **GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS** *(continued)* | | | | | | | | | | | | | | | |
| 43B. N-Nitrosodiphenylamine (86-30-6) | | | X | | | | | | | | | | | | |
| 44B. Phenanthrene (85-01-8) | | | X | | | | | | | | | | | | |
| 45B. Pyrene (129-00-0) | | | X | | | | | | | | | | | | |
| 46B. 1,2,4-Trichlorobenzene (120-82-1) | | | X | | | | | | | | | | | | |
| **GC/MS FRACTION – PESTICIDES** | | | | | | | | | | | | | | | |
| 1P. Aldrin (309-00-2) | | | X | | | | | | | | | | | | |
| 2P. α-BHC (319-84-6) | | | X | | | | | | | | | | | | |
| 3P. β-BHC (319-85-7) | | | X | | | | | | | | | | | | |
| 4P. γ-BHC (58-89-9) | | | X | | | | | | | | | | | | |
| 5P. δ-BHC (319-86-8) | | | X | | | | | | | | | | | | |
| 6P. Chlordane (57-74-9) | | | X | | | | | | | | | | | | |
| 7P. 4,4'-DDT (50-29-3) | | | X | | | | | | | | | | | | |
| 8P. 4,4'-DDE (72-55-9) | | | X | | | | | | | | | | | | |
| 9P. 4,4'-DDD (72-54-8) | | | X | | | | | | | | | | | | |
| 10P. Dieldrin (60-57-1) | | | X | | | | | | | | | | | | |
| 11P. α-Endosulfan (115-29-7) | | | X | | | | | | | | | | | | |
| 12P. β-Endosulfan (115-29-7) | | | X | | | | | | | | | | | | |
| 13P. Endosulfan Sulfate (1031-07-8) | | | X | | | | | | | | | | | | |
| 14P. Endrin (72-20-8) | | | X | | | | | | | | | | | | |
| 15P. Endrin Aldehyde (7421-93-4) | | | X | | | | | | | | | | | | |
| 16P. Heptachlor (76-44-8) | | | X | | | | | | | | | | | | |



CONTINUE ON PAGE V-9

CONTINUED FROM PAGE V-8

| EPA I.D. NUMBER (copy from Item 1 of Form 1) | OUTFALL NUMBER |
|---|---|
| DE 0000299 | 001 |

| 1. POLLUTANT AND CAS NUMBER (if available) | 2. MARK 'X' | | | 3. EFFLUENT | | | | | | | 4. UNITS | | 5. INTAKE (optional) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | a. TESTING REQUIRED | b. BELIEVED PRESENT | c. BELIEVED ABSENT | a. MAXIMUM DAILY VALUE (1) CONCENTRATION | (2) MASS | b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION | (2) MASS | c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION | (2) MASS | d. NO. OF ANALYSES | a. CONCENTRATION | b. MASS | a. LONG TERM AVERAGE VALUE (1) CONCENTRATION | (2) MASS | b. NO. OF ANALYSES |
| **GC/MS FRACTION — PESTICIDES** *(continued)* | | | | | | | | | | | | | | | |
| 17P. Heptachlor Epoxide (1024-57-3) | | | X | | | | | | | | | | | | |
| 18P. PCB-1242 (53469-21-9) | | | X | | | | | | | | | | | | |
| 19P. PCB-1254 (11097-69-1) | | | X | | | | | | | | | | | | |
| 20P. PCB-1221 (11104-28-2) | | | X | | | | | | | | | | | | |
| 21P. PCB-1232 (11141-16-5) | | | X | | | | | | | | | | | | |
| 22P. PCB-1248 (12672-29-6) | | | X | | | | | | | | | | | | |
| 23P. PCB-1260 (11096-82-5) | | | X | | | | | | | | | | | | |
| 24P. PCB-1016 (12674-11-2) | | | X | | | | | | | | | | | | |
| 25P. Toxaphene (8001-35-2) | | | X | | | | | | | | | | | | |

Please print or type in the unshaded areas only

EPA ID Number *(copy from Item I of Form 1)*: DE 0000299-002

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

Form 2F NPDES

United States Environmental Protection Agency
Washington, DC 20460

# Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

**Paperwork Reduction Act Notice**

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

| A. Outfall Number *(list)* | B. Latitude | | | C. Longitude | | | D. Receiving Water *(name)* |
|---|---|---|---|---|---|---|---|
| 002 | 38 | 43 | 11 | 75 | 17 | 22 | BEAVER DAM BRANCH |
| | | | | | | | |
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## II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions. NO

| 1. Identification of Conditions, Agreements, Etc. | 2. Affected Outfalls | | 3. Brief Description of Project | 4. Final Compliance Date | |
|---|---|---|---|---|---|
| | number | source of discharge | | a. req. | b. proj. |
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B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

## III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.


Continue on Page 2

Continued from the Front

## IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

| Outfall Number | Area of Impervious Surface (provide units) | Total Area Drained (provide units) | Outfall Number | Area of Impervious Surface (provide units) | Total Area Drained (provide units) |
|---|---|---|---|---|---|
| 002 | | | | | |

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

N/A

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

| Outfall Number | Treatment | List Codes from Table 2F-1 |
|---|---|---|
| 002 | SOUTH FENCE – CONCRETE SUMP WITH PUMP TO WASTEWATER | 1-M |
| | WEST FENCE – CONCRETE SUMP WITH PUMP TO WASTEWATER | 1-M |

## V. Nonstormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

| Name and Official Title *(type or print)* | Signature | Date Signed |
|---|---|---|
| | | |

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

## VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

N/A

Continued from Page 2

EPA ID Number *(copy from Item I of Form 1)*
DE 0000299-002

## VII. Discharge Information

A,B,C, & D: **See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.** Tables VII-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E: Potential discharges not covered by analysis - is any toxic pollutant listed in table 2F-2, 2F-3 or 2F-4, a substance or a componant of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes *(list all such pollutants below)* ☒ No *(go to Section IX)*

## VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes *(list all such pollutants below)* ☐ No *(go to Section IX)*

## IX. Contract Analysis Information

Were any of the analysis reported in item VII performed by a contract laboratory or consulting firm?

☒ Yes *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ No *(go to Section X)*

| A. Name | B. Address | C. Area Code & Phone No. | D. Pollutants Analyzed |
|---|---|---|---|
| ENVIROCORP, INC | 14 COMMERCE ST. HARRINGTON, DE 19952 | (302) 398-4313 | $BOD_5$ TSS O&G TP $NH_3$ TKN OP $NO_3$ $NO_2$ FECAL ENTEROCOCCUS |

## X. Certification

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

| A. Name & Official Title *(type or print)* | B. Area Code and Phone No. |
|---|---|
| STEVE HUDSON WASTEWATER MANAGER | 302-684-1640 |
| **C. Signature** | **D. Date Signed** |
| Steve Hudson | 4/20/04 |

EPA ID Number *(copy from Item I of Form 1)*: DE 0000299-002

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

## VII. Discharge Information *(Continued from page 3 of Form 2F)*

**Part A -** You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

| Pollutant and CAS Number *(if available)* | Maximum Values *(include units)* | | Average Values *(include units)* | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 20 Minutes | Flow-weighted Composite | Grab Sample Taken During First 20 Minutes | Flow-weighted Composite | | |
| Oil and Grease | 15.3 mg/L | N/A | | | 1 | PREVIOUS ANALYSES |
| Biological Oxygen Demand (BOD5) | 28.2 mg/L | | | | 1 | |
| Chemical Oxygen Demand (COD) | | | | | 1 | |
| Total Suspended Solids (TSS) | 679 mg/L | | | | 1 | |
| Total Nitrogen | 9.65 mg/L | | | | 1 | |
| Total Phosphorus | 1.84 mg/L | | | | 1 | |
| pH | Minimum | Maximum | Minimum | Maximum | | |

**Part B -** List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

| Pollutant and CAS Number *(if available)* | Maximum Values *(include units)* | | Average Values *(include units)* | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 20 Minutes | Flow-weighted Composite | Grab Sample Taken During First 20 Minutes | Flow-weighted Composite | | |
| FECAL ENTEROCOCCUS | 33600/100 mL | | | | | PREVIOUS ANALYSES |

Continued from the Front

**Part C -** List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

| Pollutant and CAS Number *(if available)* | Maximum Values *(include units)* | | Average Values *(include units)* | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 20 Minutes | Flow-weighted Composite | Grab Sample Taken During First 20 Minutes | Flow-weighted Composite | | |
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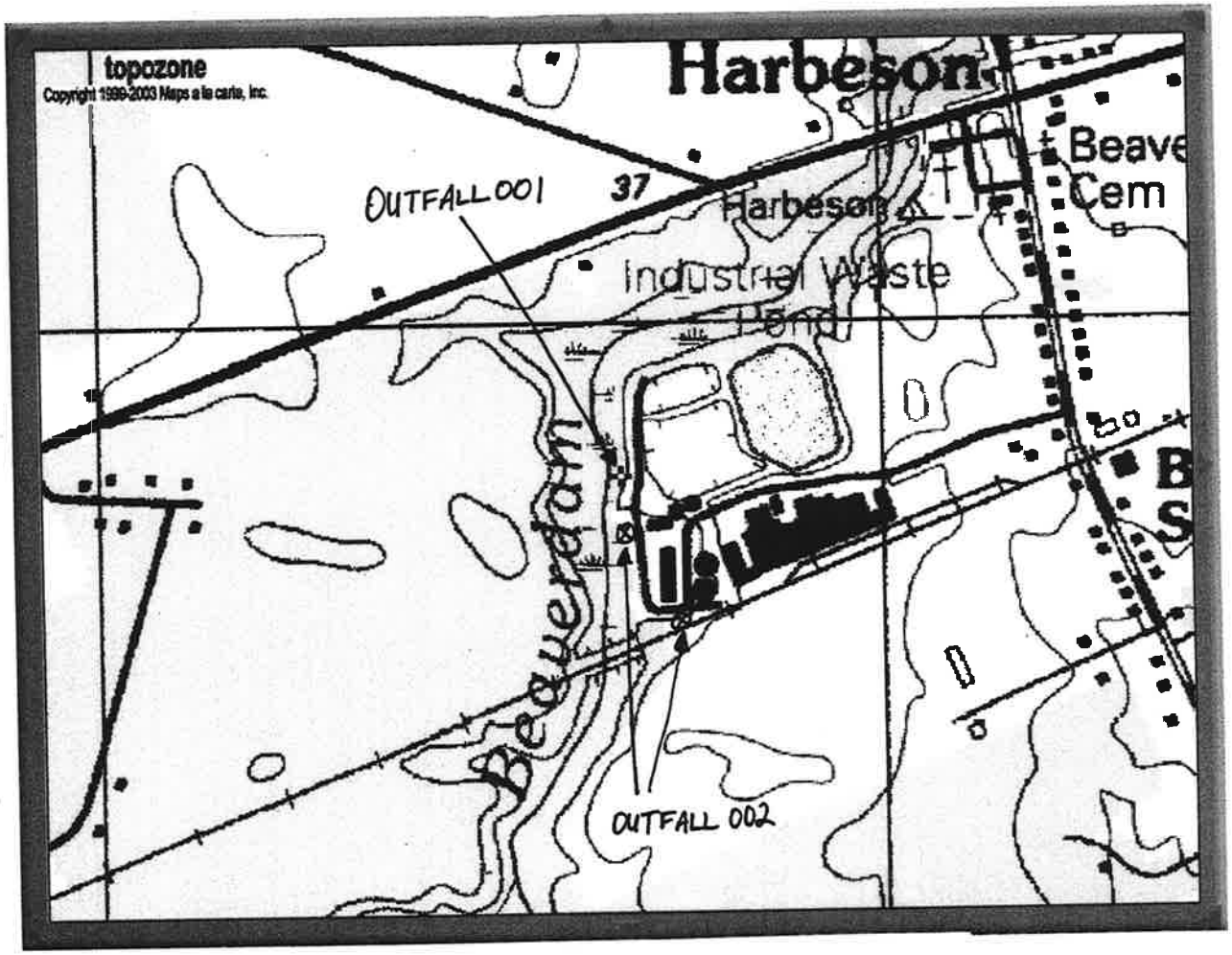
**Part D -** Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

| 1. Date of Storm Event | 2. Duration of Storm Event *(in minutes)* | 3. Total rainfall during storm event *(in inches)* | 4. Number of hours between beginning of storm measured and end of previous measurable rain event | 5. Maximum flow rate during rain event *(gallons/minute or specify units* | 6. Total flow from rain event *(gallons or specify units)* |
|---|---|---|---|---|---|
| 3/16/04 | N/A | 0.25 IN | 200 | 5 GAL/MIN | 600 GAL |

7. Provide a description of the method of flow measurement or estimate.

ESTIMATED FLOW FROM SAMPLE COLLECTION POINT

UTM 18 474658E 4285810N (WGS84/NAD83)
USGS **Harbeson** Quad



THE QUALITY CHICKEN PEOPLE

ALLEN FAMILY FOODS, INC.
P.O. BOX 63
HARBESON, DE 19951
302/684-1640 FAX: 302/684-1638

May 13, 2004

Delaware Department of Natural Resources
and Environmental Control
Division of Water Resources
89 Kings Highway
Dover, Delaware 19903

Attn: Mr. Peder Hanson
Program Manager

Re: NPDES Permit No. DE 0000299
Allen Family Foods - Harbeson

Subject: NPDES Renewal Application

Dear Mr. Hanson:

Enclosed you will find our bioassay results for the April 2004 chronic test. This should satisfy the requirements for the application for re-issuance of the NPDES permit to discharge treated process water and storm water to Beaverdam Creek.

If you have any questions, please do not hesitate to contact me at 684-1640 x184.

Respectfully submitted,
ALLEN FAMILY FOODS, INC.

Steve Hudson
Wastewater Manager

Aquatech Environmental Services, Inc.
503 Central Drive East, Suite 101
Virginia Beach, VA. 23454
(757) 631-2755

# Certificate of Results

Allen Family Foods, Inc.
18752 Harbeson Road
Harbeson, Delaware 19966
(302) 684-1640
Steve Hudson

**DE0000299**
040428-C-1-A0404

**Composite Samples**
26-27 April, 2004

Receipt Date: 28 April, 2004
Initial Test Date: 28 April, 2004

**7 Day Survival & Reproduction**
*Ceriodaphnia dubia*
**7 day Survival & Growth**
*Pimephales promelas*

Lab Director: Amelia DaCruz

QA/QC Officer: Nelson DaCruz

Results relate only to the items tested of the sample as received by the Laboratory.

[X] Certifies that data **meets** all of the requirements of NELAP
[ ] Certifies that data **does not** comply with NELAP Standards

**Non-Compliance Notes/ Sample Deviations**: None



This report contains 24 pages.

Aquatech Environmental Services, Inc.
503 Central Drive East, Suite 101
Virginia Beach, VA. 23454
(757) 631-2755



# TABLE OF CONTENTS

Aquatech Environmental Services, Inc.
503 Central Drive East, Suite 101
Virginia Beach, VA. 23454
(757) 631-2755



# Certificate of Results

Allen Family Foods, Inc.

DE0000299

040428-C-1-A0404

**Composite Samples**

26-27 April, 2004

Receipt Date: 28 April, 2004

Initial Test Date: 28 April, 2004

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein; and based on my inquiry of the individuals personally responsible for obtaining the information, I believe the attached information is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possiblity of fine or imprisonment as provided by state and federal laws.

Signature of Facility Authorized Representative

5/13/04

Submission Date

Aquatech Environmental Services, Inc.
503 Central Drive East, Suite 101
Virginia Beach, Va. 23454



**General Summary**

Allen Family Foods, Inc. 4/26-4/27/04; 09:00-09:00 Initial Sample Date
040428-C-1-A0404 Outfall 001

| *Ceriodaphnia dubia* | Results | | 100% Effluent | Dil. Water | RT/ (cdcl) |
|---|---|---|---|---|---|
| 7 day Chronic | NOEC | TU | | | |
| **Survival & Reproduction** | 100.00% | 1 | PASS | | |
| 48 hour survival-LC50 | >100% | | | | |
| Survival | 100.00% | | 100% | 100% | 12.5 ug/L |
| Reproduction | 100.00% | | 18 | 18.8 | 6.25 ug/L |
| IC25 | >100% | | | | 12.36 ug/L |
| *Pimephales promelas* | Results | | 100% Effluent | Dil. Water | RT/ (cdcl) |
| 7 day Chronic | NOEC | TU | | | |
| **Survival & Growth** | 100.00% | 1 | PASS | | |
| 96 hour survival-LC50 | >100% | | | | |
| Survival | 100.00% | | 72.5% | 80.0% | 6.25 ug/L |
| Growth | 100.00% | | 0.3325 | 0.3125 | 12.5 ug/L |
| IC25 | >100% | | | | 10.34 ug/L |

Discussion: Fathead growth is based on the original number of organisms. Organisms appeared normal.

Aquatech Environmental Services, Inc.
503 Central Drive East, Suite 101
Virginia Beach, Va. 23454



## Methods & Materials

## Allen Family Foods, Inc.

040428-C-1-A0404

**Results:** 100% effluent was tested using Ceriodaphnia dubia in a 7 day chronic series. The performance was compared to Moderately Hard control water for the following endpoints: survival & reproduction. All statistics were calculated and provided. The following results from this event show **no significant difference** for either of the organisms used, and therefore passed the minimum criteria.

The methods used for the following tests adhere to our SOP for Chronic Toxicity Testing, thereby conforming to the recommended guidelines in Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, 4th Edition, EPA-821-R-02-013
*Ceriodaphnia dubia*

Chronic 7 day- Survival & Reproduction

Organisms 20 hours of age were randomly selected and placed into labeled 30 ml disposable test tubes. A total sample volume of 15 ml was used in each test tube. All tests were initiated using 10 replicates in the 100% and the control. Samples were measured prior to initiation of each renewal for D.O., pH, temperature, conductivity, alkalinity, total residual chlorine and hardness. After the initial readings are taken 2 mls of a 2:1:2 algal suspension is mixed with 150 mls of each effluent concentration. This is then divided proportionally between the 10 replicate test tubes. One organism was placed into each replicate test tube in a random order. The test tubes were maintained on a rack and carefully placed in an incubator which maintained a recorded temperature of 25 $\pm$ 1 degree Celcius. The D.O. temp., pH, mortality and brood were measured prior to each renewal on the decanted portion of a replicate in each concentration. To renew the solutions, the C. dubia adult was actually removed and placed into a totally new solution. The remaining liquid was decanted off into a petri dish and any brood counted. These dilution's were renewed daily until 80% of the controls had achieved third brood. Survival & reproduction were used to determine the NOEC values.

Aquatech Environmental Services, Inc.
503 Central Drive East, Suite 101
Virginia Beach, Va. 23454



**Allen Family Foods, Inc.**

## Methods & Materials

040428-C-1-A0404

**Sample Prep:** 100% effluent was tested using Pimephales promelas in a 7 day chronic series. The performance was compared to Moderately Hard control water for the following endpoints: survival & growth. All statistics were calculated and provided.

The methods used for the following tests adhere to our SOP for Chronic Toxicity Testing, thereby conforming to the recommended guidelines in Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms, 4th Edition, EPA-821-R-02-013

*Pimephales promelas*

Chronic 7 day- Survival & Growth weight

Organisms 20 hours of age were randomly selected and placed into labeled 400 ml disposable beakers. A total sample volume of 250 ml was used in each beaker. All tests were initiated using 4 replicates in the 100% and the control. Samples were measured prior to initiation of each renewal for D.O., pH, temperature, conductivity, alkalinity, total residual chlorine and hardness. A total of 10 organisms were placed into each replicate beaker in a random order. The beakers were carefully placed in an incubator which maintained a recorded temperature of 25 $\pm$ 1 degree Celcius. The D.O. temp., pH and mortality were measured prior to each renewal on the decanted portion of a replicate in each concentration. To renew the solutions, the solution was decanted off to a low volume of 10 mm was achieved, the renewal solution was then slowly poured into the container. These samples were renewed each of the 7 days. The fatheads were fed twice daily artemia < 24 hours old. Upon completion of the tests the organisms were dried and weighed to determine a NOEC for survival & growth.

DATE 4/27/04

AQUATECH ENVIRONMENTAL SERVICES, INC.



# Chain-of-Custody

| Company Name | Permit Number |
|---|---|
| ALLEN FAMILY FOODS, INC | DE 0000299 |
| **Project Manager** | **Phone Number** |
| STEVE HUDSON | 302-684-1640 |
| **SAMPLER (Printed / Signature)** | STEVE HUDSON |

AES LOG Number 04/0428-C-1-A0404

SAMPLE INFORMATION

| Sample Source | Sample Collection Initial Time | Sample Collection Final Time | Sample Type Grab /Comp | Volume Collected | Flow MGD | Temp Celcius | Chlorine mg/L | pH |
|---|---|---|---|---|---|---|---|---|
| 001 | 4/26/04 0900 | 4/27/04 0900 | 24HR COMP | 1 GAL | 1.10 | 3° | 0.0 | 6.8 |
| | | | | | | | | |
| | | | | | | | | |
| SAMPLE | TAKEN | FROM | 4/26/04 – 4/27/04 | | | | | |
| | | | | | | | | |

503 Central Drive East, Suite 101
Virginia Beach, VA 23454
(757) 631-2755

Primary # 01102CA
Secondary # E87842
NRC License # 45-25198-01
FDA #0015001125059

RECEIVING STREAM (if known): BEAVERDAM CREEK — MARINE (FRESH)

Shipped by (circle one): UPS (FEDEX) AIRBORNE HAND DELIVERED OTHER
Tracking #

| Relinquished by: | Date | Time | Received by: |
|---|---|---|---|
| STHudson | 4/27/04 | | FED EX |
| FED EX | 4/28/04 | 0945 | Martha A Fontana |

LAB USE ONLY — INTERNAL TRACKING — LAB USE ONLY

Organisms Required: (CD) (PP) CV AB SC AA HA Other: _____

Test Length: 24 48 96 (7d) 14d 10d 30d Other: _____

Feeding Required: NTBF 2 hrs prior to renewal (acutes) ✓ Daily (1-2X)

| Technician | UBC | | | | |
|---|---|---|---|---|---|
| Sample ID | 001 | | | | |
| Analytical | | | | | |
| Temp °C | 0.5°C | | | | |
| pH | 7.58 | | | | |
| D.O.(mg/L) | 9.2 | | | | |
| Alk (mg/L) | 101.9 | | | | |
| Hard(mg/L) | 26.0 | | | | |
| Amm (mg/L) | 0.11 | | | | |
| Nitrite (mg/L) | 0.005 | | | | |
| Nitrate (mg/L) | 0.20 | | | | |
| Chlorine (mg/L) | <0.01 | | | | |
| Cond (umhos) | 762 | | | | |
| Salinity (ppt) | 0.5 | | | | |
| Appearance | Clear | | | | |
| Odor | none | | | | |

Use Dates: 4/28/04, 4/29/04

Aeration ___ none ✓ yes: 100 bubbles/ minute ( 10 ) minutes

Dechlor-Na-thiosulfate ✓ none ___ yes: ( ) drops of 0.1N/ ( ) liters

EDTA Addition ✓ none ___ yes: ( ) drops( ) liters

**Radioactivity Information**
(if Required)
Background ____ mr /Hr
Standard ____ mr /Hr
Cooler ____ mr /Hr
Sample ____ mr / Hr

**Compliance Information**
✓ yes ___ no by MAF
AES Sampler ___ yes ✓ no
On ICE ✓ yes ___ no
Holding met ✓ yes ___ no
Receipt OK ✓ yes ___ no

**Non-compliant-Client Notified**
___ yes ___ no by ____
Authorized by:
( )
Date/Time:

**SAMPLE DISPOSAL**
(by Lab) Return
(30 day (standard)) 60 days
Other

DATE 4/29/04

AQUATECH ENVIRONMENTAL SERVICES, INC.



# Chain-of-Custody

| Company Name | Permit Number |
|---|---|
| ALLEN FAMILY FOODS | DE 0000299 |
| **Project Manager** | **Phone Number** |
| STEVE HUDSON | 302-684-1640 |
| SAMPLER (Printed / Signature) STEVE HUDSON | Steve Hudson |

AES LOG Number 04030-CR-1-A0404

SAMPLE INFORMATION

| Sample Source | Sample Collection Initial Time | Sample Collection Final Time | Sample Type Grab /Comp | Volume Collected | Flow MGD | Temp Celcius | Chlorine mg/L | pH |
|---|---|---|---|---|---|---|---|---|
| 001 | 4/28/04 0900 | 4/29/04 0900 | 24 HR COMP | 1 GAL | 1.18 | 2° | 0 | 6.55 |
| | | | | | | | | |
| | | | | | | | | |
| SAMPLE COLLECTED 4/28 - 4/29 | | | | | | | | |
| | | | | | | | | |

503 Central Drive East, Suite 101
Virginia Beach, VA 23454
(757) 631-2755

Primary # 01102CA
Secondary # E87842
NRC License # 45-25198-01
FDA #0015001125059

RECEIVING STREAM (if known): BEAVERDAM CREEK — MARINE (FRESH)

Shipped by (circle one): UPS (FEDEX) AIRBORNE HAND DELIVERED OTHER

Tracking #

| Relinquished by: | Date | Time | Received by: |
|---|---|---|---|
| Steve Hudson | | | FED EX |
| FED EX | 4/30/04 | 0955 | Martha A Fontarra |

LAB USE ONLY — INTERNAL TRACKING — LAB USE ONLY

Organisms Required: (CD) (PP) CV AB SC AA HA Other: _____

Test Length: 24 48 96 (7d) 14d 10d 30d Other: _____

Feeding Required: NTBF 2 hrs prior to renewal (acutes) ✓ Daily (1-2X)

| Technician | MAF/LBC | | | | |
|---|---|---|---|---|---|
| Sample ID | | | | | |
| Analytical | | | | | |
| Temp °C | 1.3°C | | | | |
| pH | 7.46 | | | | |
| D.O.(mg/L) | 9.0 | | | | |
| Alk (mg/L) | 61.14 | | | | |
| Hard (mg/L) | 34.0 | | | | |
| Amm (mg/L) | 0.12 | | | | |
| Nitrite (mg/L) | 0.027 | | | | |
| Nitrate (mg/L) | 0.23 | | | | |
| Chlorine (mg/L) | 0.01 | | | | |
| Cond (umhos) | 563 | | | | |
| Salinity (ppt) | 0.4 | | | | |
| Appearance | clear | | | | |
| Odor | none | | | | |

Use Dates: 4/30/04, 5/1/04

Aeration ✓ none ___ yes: 100 bubbles/ minute ( ) minutes

Dechlor-Na-thiosulfate ✓ none ___ yes: ( ) drops of 0.1N/ ( ) liters

EDTA Addition ___ none ___ yes: ( ) drops( ) liters

**Radioactivity Information**
(if Required)
Background ____ mr /Hr
Standard ____ mr /Hr
Cooler ____ mr /Hr
Sample ____ mr / Hr

**Compliance Information**
✓ yes ___ no by MAF
AES Sampler ___ yes ✓ no
On ICE ✓ yes ___ no
Holding met ✓ yes ___ no
Receipt OK ✓ yes ___ no

**Non-compliant-Client Notified**
yes no by ____
Authorized by:
( )
Date/Time:

**SAMPLE DISPOSAL**
(by Lab) Return
(30 day (standard)) 60 days
Other

DATE 5/1/04

AQUATECH ENVIRONMENTAL SERVICES, INC.



# Chain-of-Custody

| Facility Name | Permit Number |
|---|---|
| ALLEN'S FAMILY FOODS | |
| Project Manager: STEVE HUDSON | Phone Number: 302-684-1640 |
| SAMPLER (Printed / Signature): TOM BRINSON / M Thomas Brinson | |

AES LOG Number: C40501-CR-1-A0404

SAMPLE INFORMATION

| Sample Source | Sample Collection Initial Time | Sample Collection Final Time | Sample Type Grab /Comp | Volume Collected | Flow MGD | Temp Celcius | Chlorine mg/L | pH |
|---|---|---|---|---|---|---|---|---|
| DISCHARGE 001 | 4/30 0930 | 5/01 0930 | Comp | 16AL | 1.3 | 3°C | N.D. | 6.45 |
| | | | | | | | | |
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| | | | | | | | | |

503 Central Drive East, Suite 101
Virginia Beach, VA 23454
(757) 631-2755

Primary # 01102CA
Secondary # E87842
NRC License # 45-25198-01
FDA #0015001125059

RECEIVING STREAM (if known): MARINE FRESH

Shipped by (circle one): UPS FEDEX AIRBORNE HAND DELIVERED OTHER

Tracking #

| Relinquished by: | Date | Time | Received by: |
|---|---|---|---|
| M Thomas Brinson | 5/1/04 | 1220 | Pamela DiCelly |
| Relinquished by: | Date | Time | Received by: |

LAB USE ONLY — INTERNAL TRACKING — LAB USE ONLY

Organisms Required: (CD) (PP) CV AB SC AA HA Other:

Test Length: 24 48 96 (7d) 14d 10d 30d Other: Screen

Feeding Required: NTBF 2 hrs prior to renewal (acutes) ✓ Daily (1-2X)

| Technician | LBC | | | | |
|---|---|---|---|---|---|
| Sample ID | | | | | |
| Analytical | | | | | |
| Temp °C | 3.7 | | | | |
| pH | 7.25 | | | | |
| DO (mg/L) | 9.0 | | | | |
| Alk (mg/L) | 61.14 | | | | |
| Hard (mg/L) | 32.0 | | | | |
| Amm (mg/L) | 0.12 | | | | |
| Nitrite (mg/L) | 0.021 | | | | |
| Nitrate (mg/L) | 0.42 | | | | |
| Chlorine (mg/L) | 0.04 | | | | |
| Cond (umhos) | 587 | | | | |
| Salinity (ppt) | 0.5 | | | | |
| Appearance | Clear | | | | |
| Other | None | | | | |

Aeration: 5/02, 5/03, 5/04 ✓none ___yes: 100 bubbles/ minute ( ) minutes

Dechlor: Na-thiosulfate ✓none ___yes: ( ) drops of 0.1N/ ( ) liters

Water addition ✓none ___yes: ( ) drops( ) liters

**Radioactivity Information** (if Required)

Background ___ mr /Hr
Standard ___ mr /Hr
Cooler ___ mr /Hr
Sample ___ mr / Hr

**Compliance Information**

✓yes ___no by
AES Sampler ✓yes ✓no
On ICE ✓yes ___no
Holding met ✓yes ___no
Receipt OK ✓yes ___no

**Non-compliant-Client Notified**

yes no by
Authorized by:
( )
Date/Time:

**SAMPLE DISPOSAL**

(by Lab) Return
(30 day (standard)) 60 days
Other

Aquatech Environmental Services, Inc.
503 Central Drive East, Suite 101
Virginia Beach, Va. 23454

# Sample Information

**Accreditation # 01102CA**

| | | | |
|---|---|---|---|
| 1.0 Facility: | **Allen Family Foods, Inc.** | | |
| 2.0 Sample ID: | **040428-C-1-A0404** | | 7 day Chronic Toxicity |
| | **Outfall 001** | | *Ceriodaphnia dubia* |
| 2.1 Quantity of Samples: | **3 samples** | | Survival & Reproduction |
| 2.2 Initial Receipt Date/ Time | **4/28/04; 09:45** | | |
| 2.3 Temperature @ Receipt: | **0.5** | | Submitted to:Steve Hudson |
| | | 6-May-04 | Date Prepared |

2.4 Chemistry Performed @ Receipt:

| | 100% Effluent | MHW |
|---|---|---|
| pH | 7.58 | 7.8 |
| D.O. (mg/L) | 9.2 | 8.5 |
| Alkalinity (mg/L) | 101.9 | 61.14 |
| Hardness (mg/L) | 26 | 80 |
| Ammonia (mg/L) | 0.11 | <0.01 |
| Nitrite (mg/L) | 0.005 | <0.01 |
| Nitrate (mg/L) | 0.2 | <0.001 |
| Chlorine (mg/L) | <0.01 | <0.01 |
| Conductivity (umhos) | 762 | 300 |
| Salinity (ppt) | 0.5 | <0.1 |

2.5 Dilution Water:

| | | | |
|---|---|---|---|
| Source & Storage: | MHW | Sample type: | grab |
| Date/Time prepared: | 4/28, 4/30, 5/02 | | |
| Pretreatment Info: | None | | |

2.6 Sample Storage: 4°C

2.7 Sample Preparation: Warm to 25 celcius, 0.5 dilution

6.1 Results:

Software & Statistical Methods Used: Fisher's Exact & Shapiro's Wilkes

Homogeneous: Yes

Normal Variances: Yes

Endpoints:

| LC50 | >100% | NOEC | 100.00% |
|---|---|---|---|
| lower 95% | - | LOEC | >100% |
| upper 95% | - | TU | 1.00 |
| TU | na | | |

**Summary of Physical & Chemical Parameters:**

**MHW**

| | Range | Mean |
|---|---|---|
| Temperature °C | 24.5-25.7 | 24.91 |
| pH | 7.80-8.22 | 7.95 |
| D.O. (mg/L) | 8.4-8.8 | 8.54 |
| Conductivity | 300-300 | 300.00 |
| Salinity | <0.1 | <0.1 |

**100% Efflu.**

| | Range | Mean |
|---|---|---|
| Temperature °C | 24.3-25.8 | 24.9 |
| pH | 7.32-8.27 | 7.7 |
| D.O. (mg/L) | 8.4-9.0 | 8.8 |
| Conductivity | 947-983 | 962.0 |
| Salinity | na | na |

Aquatech Environmental Services, Inc.
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Virginia Beach, Va. 23454



Accreditation # 01102CA

# Test Conditions

| | | | | |
|---|---|---|---|---|
| 1.0 | Facility: | **Allen Family Foods, Inc.** | | |
| 2.1 | Sample ID: | **040428-C-1-A0404** | | 7 day Chronic Toxicity |
| | | **Outfall 001** | | *Ceriodaphnia dubia* |
| 2.1 | Quantity of Samples: | **3 samples** | | Survival & Reproduction |
| 2.2 | Initial Receipt Date/ Time | **4/28/04; 09:45** | | |
| 2.3 | Temperature @ Receipt: | **0.5** | | Submitted to:Steve Hudson |
| | | | 6-May-04 | Date Prepared |

3.1 **Test Conditions**

| | |
|---|---|
| Toxicity Test Method: | EPA-821-R-02-013 |
| Enpoints: | Survival & Reproduction |
| Deviations: | None |
| Start Date/Time: | 4/28/04; 12:00 |
| End Date/Time: | 5/05/04; 12:15 |
| Samples Renewed: | Daily |
| If Yes, within +/- 2 hour of Test Initiation: | Yes |

| | |
|---|---|
| Test Chamber Size: | 30 ml |
| Sample Volume: | 15 ml |
| Number of Replicates: | 10 |
| Organisms / Replicate: | 1 |

| | |
|---|---|
| Food Type: | 3 algae |
| Date/Time: | daily @ renewal |
| Concentration or Age: | 5-7 days |
| Date Prepared: | 4/23-4/29/04 |

| | | | |
|---|---|---|---|
| Acclimation of Organisms: | Hatched in 25 °C | | Survival % |
| Test Temperature: mean | 24.91 | MHW | 100% |
| Test Conductivity: mean | 300 | 100% Effluent | 100% |

| | |
|---|---|
| Aeration Necessary: | Yes, 1st sample only. |
| Organism weighed: | na |
| Chemistries performed: | in vessels |
| Randomization: | in accordance with Toxcalc |

4.1

| | | | |
|---|---|---|---|
| **Test Organisms** | *Ceriodaphnia dubia* | Taxonomic Key: | Pal, 1980 |
| Age of Organisms: | 20 hours | | |
| Source of Cultures: | AES Inhouse | Generation: | 3171st |
| mean control org/rep | 18.8 | Holding Conditions: | 1/ml |
| 100% Effluent | 18 | Treatments: | none |

5.1 **Quality Assurance / Quality Control**

| | | | |
|---|---|---|---|
| Reference Toxicant: | Cadmium Chloride | RT Results | 4/06/04; 11:20 |
| Source: | ERA | Survival-NOEC | 12.5 ug/L |
| Date Received: | 28-Feb-03 | Reproduction-NOEC | 6.25 ug/L |
| Lot # | 0225-03-01 | IC25 | 12.36 ug/L |

| | | | |
|---|---|---|---|
| Test ID: | Allen Family Foods, Inc. | Dilution water type: | 80 mg/L MHW |
| NPDES # | DE0000299 | Organism Type: | Ceriodaphnia dubia |
| Source: | 001 | Test Type: | Survival & Reproduction |
| Date/Time Collected | 4/26/04-4/27/04; 09:00-09:00 | Age of Organisms: | 20 hours Gen. 3171 |
| Sample Type: | composite | Test Volume: | 15 mls |
| Sampler: | ADC/NDC/MAF | Chamber size: | 30 mls |
| Date/Time Started: | 4/28/04 1200 | Date /Time Ended: | 5/5/04 1215 |

**Info Upon Receipt**

| | | | | | |
|---|---|---|---|---|---|
| pH | 7.58 | | Dissolved Oxygen | 9.20 | mg/L |
| Chlorine | <0.01 | mg/L | Conductivity | 762 | umhos |
| Ammonia | 0.11 | mg/L | Total Alkalinity | 101.9 | mg/L |
| Temperature | 0.5 | °C | Total Hardness | 26 | mg/L |

Conc: Control

| | | Day 0 | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp °C | Initial | 24.5 | 24.7 | 24.5 | 25.7 | 25.6 | 25.4 | 24.9 | | | Final pH day 1 8.22 |
| | Final | | 25.0 | 24.6 | 24.5 | 24.8 | 24.9 | 24.8 | 24.9 | | |
| pH | Initial | 7.80 | 7.86 | 7.79 | 7.83 | 7.81 | 7.88 | 7.82 | | | |
| | Final | | ~~7.64~~ | 8.12 | 8.11 | 7.99 | 8.03 | 8.08 | 8.00 | | |
| DO | Initial | 8.5 | 8.5 | 8.5 | 8.5 | 8.4 | 8.5 | 8.5 | | | |
| | Final | | 9.8 | 8.6 | 8.6 | 8.5 | 8.5 | 8.5 | 8.6 | | |
| Final Replicate | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| Conductivity | | 300 | 300 | 300 | 300 | 300 | 300 | 300 | | | |
| Alkalinity mg/L | | 61.14 | 61.14 | 61.14 | 61.14 | 61.14 | 61.14 | 61.14 | | | |
| Hardness mg/L | | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | | | |
| Chlorine mg/L | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| TIME | | 1200 | 1330 | 1150 | 1040 | 1330 | 1130 | 1230 | 1245 | | |
| INITIALS | | ADC | MAF | A | ADC | A | MAF | MAF | MAF | | |

Conc: 100%

| | | Day 0 | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp °C | Initial | 24.9 | 25.2 | 24.4 | 24.3 | 25.8 | 25.7 | 24.7 | | | Final pH day 1 8.27 |
| | Final | | 25.0 | 24.7 | 24.6 | 24.7 | 24.9 | 24.8 | 24.9 | | |
| pH | Initial | 7.35 | 7.56 | 7.35 | 7.34 | 7.32 | 7.35 | 7.33 | | | |
| | Final | | ~~7.72~~ | 8.08 | 8.05 | 7.99 | 8.01 | 8.04 | 7.99 | | |
| DO | Initial | 9.0 | 8.9 | 8.9 | 8.8 | 8.9 | 8.9 | 9.0 | | | |
| | Final | | 8.7 | 8.7 | 8.6 | 8.4 | 8.5 | 8.6 | 8.7 | | |
| Final Replicate | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | |
| Conductivity | | 983 | 983 | 947 | 947 | 958 | 958 | 958 | | | |
| Alkalinity mg/L | | 101.9 | 101.9 | 61.14 | 61.14 | 61.14 | 61.14 | 61.14 | | | |
| Hardness mg/L | | 26 | 26.0 | 34.0 | 34.0 | 32.0 | 32.0 | 32.0 | | | |
| Chlorine mg/L | | <0.01 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.04 | | | |
| TIME | | 1201 | 1331 | 1151 | 1041 | 1331 | 1131 | 1231 | 1216 | | |
| INITIALS | | ADC | MAF | A | ADC | A | MAF | MAF | MAF | | |

| | | | |
|---|---|---|---|
| Test ID: | Allen Family Foods, Inc. | Dilution water type: | 80 mg/L MHW |
| NPDES # | DE0000299 | Organism Type: | Ceriodaphnia dubia |
| Source: | 001 | Test Type: | Survival & Reproduction |
| Date/Time Collected | 4/26/04-4/27/04; 09:00-09:00 | Age of Organisms: | 20 hours Gen. 3171 |
| Sample Type: | composite | Test Volume: | 15 mls |
| Sampler: | ADC/NDC/MAF | Chamber size: | 30 mls |
| Date/Time Started: | 4/28/04 1200 | Date /Time Ended: | 5/5/04 1215 |

**Info Upon Receipt**

| | | | | | |
|---|---|---|---|---|---|
| **pH** | 7.58 | | **Dissolved Oxygen** | 9.20 | mg/L |
| **Chlorine** | <0.01 | mg/L | **Conductivity** | 762 | umhos |
| **Ammonia** | 0.11 | mg/L | **Total Alkalinity** | 101.9 | mg/L |
| **Temperature** | 0.5 | °C | **Total Hardness** | 26 | mg/L |

| Conc: | Rep | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Totals | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Control | 1 | 0 | 0 | 0 | 4 | 8 | 8 | 0 | | 20 | |
| | 2 | 0 | 0 | 0 | 4 | 8 | 8 | 0 | | 20 | |
| | 3 | 0 | 0 | 0 | 4 | 8 | 8 | 0 | | 20 | |
| | 4 | 0 | 0 | 0 | 4 | 8 | 8 | 0 | | 20 | |
| | 5 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 6 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 7 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 8 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 9 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 10 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| **Time** | | 1334 | 1155 | 1030 | 1335 | 1134 | 1234 | 1219 | | | |
| **Initials** | | MAF | | | | MAF | MAF | MAF | | | |

| Conc: | Rep | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Totals | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 100% | 1 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 2 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 3 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 4 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 5 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 6 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 7 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 8 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 9 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| | 10 | 0 | 0 | 0 | 4 | 6 | 8 | 0 | | 18 | |
| **Time** | | 1337 | 1159 | 1033 | 1338 | 1137 | 1237 | 1222 | | | |
| **Initials** | | MAF | | | | MAF | MAF | MAF | | | |

## Ceriodaphnia Survival and Reproduction Test-7 Day Survival

| | | | | | |
|---|---|---|---|---|---|
| Start Date: | 4/28/2004 12:00 | Test ID: | 040428Acd | Sample ID: | DE0000299 |
| End Date: | 5/5/2004 12:15 | Lab ID: | AES-CVLC-Aquatech Enviror | Sample Type: | OUTFALL 001 |
| Sample Date: | 4/27/2004 09:00 | Protocol: | EPA-CFW-EPA-821-R-02-01 | Test Species: | CD-Ceriodaphnia dubia |
| Comments: | 20 hours | | | | |

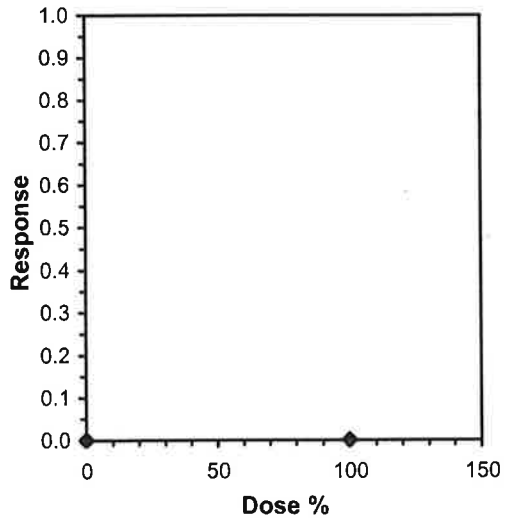
| Conc-% | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| B-Control | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |
| 100 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 |

| Conc-% | Mean | N-Mean | Resp | Not Resp | Total | N | Fisher's Exact P | 1-Tailed Critical | Isotonic Mean | Isotonic N-Mean |
|---|---|---|---|---|---|---|---|---|---|---|
| B-Control | 1.0000 | 1.0000 | 0 | 10 | 10 | 10 | | | 1.0000 | 1.0000 |
| 100 | 1.0000 | 1.0000 | 0 | 10 | 10 | 10 | 1.0000 | 0.0500 | 1.0000 | 1.0000 |

| Hypothesis Test (1-tail, 0.05) | NOEC | LOEC | ChV | TU |
|---|---|---|---|---|
| Fisher's Exact Test | 100 | >100 | | 1 |

### Linear Interpolation (80 Resamples)

| Point | % | SD | 95% CL | Skew |
|---|---|---|---|---|
| IC05 | >100 | | | |
| IC10 | >100 | | | |
| IC15 | >100 | | | |
| IC20 | >100 | | | |
| IC25 | >100 | | | |
| IC40 | >100 | | | |
| IC50 | >100 | | | |



15 of 24

## Ceriodaphnia Survival and Reproduction Test-Reproduction

| | | | | | |
|---|---|---|---|---|---|
| Start Date: | 4/28/2004 12:00 | Test ID: | 040428Acd | Sample ID: | DE0000299 |
| End Date: | 5/5/2004 12:15 | Lab ID: | AES-CVLC-Aquatech Enviror | Sample Type: | OUTFALL 001 |
| Sample Date: | 4/27/2004 09:00 | Protocol: | EPA-CFW-EPA-821-R-02-01 | Test Species: | CD-Ceriodaphnia dubia |
| Comments: | 20 hours | | | | |

| Conc-% | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| B-Control | 20.000 | 20.000 | 20.000 | 20.000 | 18.000 | 18.000 | 18.000 | 18.000 | 18.000 | 18.000 |
| 100 | 18.000 | 18.000 | 18.000 | 18.000 | 18.000 | 18.000 | 18.000 | 18.000 | 18.000 | 18.000 |

| | | | Transform: Untransformed | | | | | Rank | 1-Tailed | Isotonic | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-% | Mean | N-Mean | Mean | Min | Max | CV% | N | Sum | Critical | Mean | N-Mean |
| B-Control | 18.800 | 1.0000 | 18.800 | 18.000 | 20.000 | 5.494 | 10 | | | 18.800 | 1.0000 |
| 100 | 18.000 | 0.9574 | 18.000 | 18.000 | 18.000 | 0.000 | 10 | 85.00 | 82.00 | 18.000 | 0.9574 |

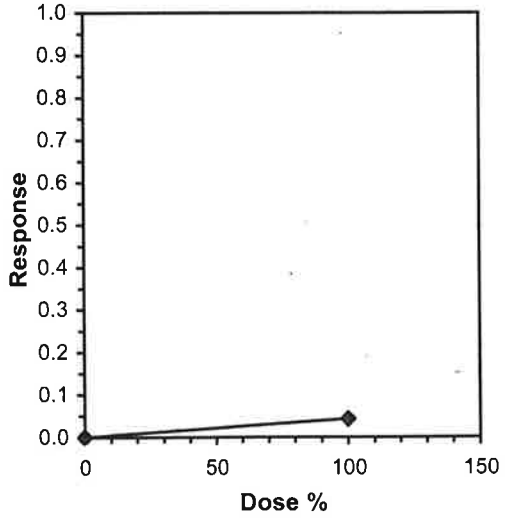
| Auxiliary Tests | Statistic | Critical | Skew | Kurt |
|---|---|---|---|---|
| Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01) | 0.79385 | 0.868 | 0.62526 | -0.4967 |
| Equality of variance cannot be confirmed | | | | |

**Hypothesis Test (1-tail, 0.05)**

Wilcoxon Two-Sample Test indicates no significant differences

**Linear Interpolation (80 Resamples)**

| Point | % | SD | 95% CL | Skew |
|---|---|---|---|---|
| IC05 | >100 | | | |
| IC10 | >100 | | | |
| IC15 | >100 | | | |
| IC20 | >100 | | | |
| IC25 | >100 | | | |
| IC40 | >100 | | | |
| IC50 | >100 | | | |



Aquatech Environmental Services, Inc.
503 Central Drive East, Suite 101
Virginia Beach, Va. 23454

# Sample Information

**Accreditation # 01102CA**

| | | | |
|---|---|---|---|
| 1.0 Facility: | **Allen Family Foods, Inc.** | | |
| 2.0 Sample ID: | **040428-C-1-A0404**<br>**Outfall 001** | | 7 day Chronic Toxicity<br>*Pimephales promelas* |
| 2.1 Quantity of Samples: | **3 samples** | | Survival & Growth |
| 2.2 Initial Receipt Date/ Time | **4/28/04; 09:45** | | |
| 2.3 Temperature @ Receipt: | **0.5** | | Submitted to:Steve Hudson |
| | | 6-May-04 | Date Prepared |

2.4 Chemistry Performed @ Receipt:

| | 100% Effluent | MHW |
|---|---|---|
| pH | 7.58 | 7.8 |
| D.O. (mg/L) | 9.2 | 8.5 |
| Alkalinity (mg/L) | 101.9 | 61.14 |
| Hardness (mg/L) | 26 | 80 |
| Ammonia (mg/L) | 0.11 | <0.01 |
| Nitrite (mg/L) | 0.005 | <0.01 |
| Nitrate (mg/L) | 0.2 | <0.001 |
| Chlorine (mg/L) | <0.01 | <0.01 |
| Conductivity (umhos) | 762 | 300 |
| Salinity (ppt) | 0.5 | <0.1 |

2.5 Dilution Water:

| | | | |
|---|---|---|---|
| Source & Storage: | MHW | Sample Type: | grab |
| Date/Time prepared: | 4/28, 4/30, 5/02 | | |
| Pretreatment Info: | None | | |

2.6 Sample Storage: 4°C

2.7 Sample Preparation: Warm to 25 celcius, 0.5 dilution

6.1 **Results:**

Software & Statistical Methods Used: Dunnett's & Steel's

Homogeneous: Yes

Normal Variances: Yes

Endpoints:

| | | | |
|---|---|---|---|
| LC50 | >100% | NOEC | 100.00% |
| LL | - | LOEC | >100% |
| UL | - | TU | 1.00 |
| TU | na | | |

**Summary of Physical & Chemical Parameters:**

**MHW**

| | Range | Mean |
|---|---|---|
| Temperature °C | 24.5-25.7 | 24.99 |
| pH | 7.47-7.88 | 7.74 |
| D.O. (mg/L) | 6.5-8.5 | 7.76 |
| Conductivity | 300-300 | 300.0 |
| Salinity | <0.1 | <0.1 |

**100% Effluent**

| | Range | Mean |
|---|---|---|
| Temperature °C | 24.3-25.8 | 25.0 |
| pH | 7.32-8.56 | 7.7 |
| D.O. (mg/L) | 7.1-9.3 | 8.4 |
| Conductivity | 947-983 | 962.0 |
| Salinity | na | na |

Aquatech Environmental Services, Inc.
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# Test Conditions

**Accreditation # 01102CA**

| | | | |
|---|---|---|---|
| 1.0 | Facility: | **Allen Family Foods, Inc.** | |
| 2.1 | Sample ID: | **040428-C-1-A0404** | 7 day Chronic Toxicity |
| | | **Outfall 001** | *Pimephales promelas* |
| 2.1 | Quantity of Samples; | **3 samples** | Survival & Growth |
| 2.2 | Initial Receipt Date/ Time | **4/28/04; 09:45** | |
| 2.3 | Temperature @ Receipt: | **0.5** | Submitted to:Steve Hudson |
| | | 6-May-04 | Date Prepared |

3.1 **Test Conditions**

| | |
|---|---|
| Toxicity Test Method: | EPA-821-R-02-013 |
| Enpoints: | Survival & Growth |
| Deviations: | None |
| Start Date/Time: | 4/28/04; 12:10 |
| End Date/Time: | 5/05/04; 12:30 |
| Samples Renewed: | Daily |
| If Yes, within +/- 2 hour of Test Initiation: | Yes |

| | |
|---|---|
| Test Chamber Size: | 400 ml |
| Sample Volume: | 250 ml |
| Number of Replicates: | 4 |
| Organisms / Replicate: | 10 |

| | |
|---|---|
| Food Type: | artemia |
| Date/Time: | 2X daily |
| Concentration or Age: | < 24 hrs |
| Date Prepared: | 4/26-5/02/04 |

| | | | |
|---|---|---|---|
| Acclimation of Organisms: | Hatched in 25 °C | | Survival % |
| Test Temperature: mean | 25.0 | MHW | 80.0% |
| Test Conductivity: mean | 300.0 | 100% Effluent | 72.5% |

| | |
|---|---|
| Aeration Necessary: | Yes, 1st sample only. |
| Organism weighed: | Yes |
| Chemistries performed: | in vessels |
| Randomization: | in accordance with Toxcalc |

4.1

| | | | |
|---|---|---|---|
| **Test Organisms** | *Pimephales promelas* | Taxonomic Key: | Snyder,1977 |
| Age of Organisms: | 20 hours | | |
| Source of Cultures: | AES Inhouse | Generation: | 15th |
| mean ctrl wt (mg): | 0.3125 | Holding Conditions: | 170/L |
| 100% Effluent | 0.3325 | Treatments: | none |

5.1 **Quality Assurance / Quality Control**

| | | | |
|---|---|---|---|
| Reference Toxicant: | Cadmium Chloride | RT Results | 4/06/04; 11:00 |
| Source: | ERA | Survival-NOEC | 6.25 ug/L |
| Date Received: | 28-Feb-03 | Growth-NOEC | 12.5 ug/L |
| Lot # | 0225-03-01 | IC25 | 10.34 ug/L |

| | | | |
|---|---|---|---|
| Test ID | Allen Family Foods, Inc. | Dilution water type: | 80 mg/L MHW |
| NPDES # | DE0000299 | Organism Type: | Pimephales promelas MH |
| Source: | 001 | Test Type: | Survival & Growth |
| Date/Time Collected | 4/26/04-4/27/04; 09:00-09:00 | Age of Organisms: | 20 hours Gen. 15th |
| Sample Type: | composite | Test Volume: | 250 mls |
| Sampler: | ADC/NDC/MAF | Chamber size: | 400 mls |
| Date/Time Started: | 4/28/04 1210 | Date /Time Ended: | 5/5/04 1230 |

**Info Upon Receipt**

| | | | | | |
|---|---|---|---|---|---|
| pH | 7.58 | | Dissolved Oxygen | 9.20 | mg/L |
| Chlorine | <0.01 | mg/L | Conductivity | 762 | umhos |
| Ammonia | 0.11 | mg/L | Total Alkalinity | 101.9 | mg/L |
| Temperature | 0.5 | °C | Total Hardness | 26 | mg/L |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Feeding AM | | 0735 | 0735 | 0755 | 0920 | 0725 | 0730 | |
| Feeding PM | 1710 | 1630 | 1615 | 1730 | 1615 | 1550 | 1610 | |

**No. of Survivors**

| Replicate | Day | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| Control | A | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 8 | |
| | B | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 8 | |
| | C | 10 | 10 | 10 | 9 | 8 | 8 | 8 | 8 | |
| | D | 10 | 10 | 9 | 8 | 8 | 8 | 8 | 8 | |
| Conc. | A | 10 | 10 | 10 | 9 | 9 | 9 | 8 | 7 | |
| 100% | B | 10 | 10 | 9 | 9 | 9 | 9 | 8 | 7 | |
| | C | 10 | 10 | 10 | 10 | 9 | 9 | 8 | 8 | |
| | D | 10 | 10 | 10 | 10 | 10 | 10 | 8 | 7 | |
| Conc. | A | | | | | | | | | |
| | B | | | | | | | | | |
| | C | | | | | | | | | |
| | D | | | | | | | | | |
| Conc. | A | | | | | | | | | |
| | B | | | | | | | | | |
| | C | | | | | | | | | |
| | D | | | | | | | | | |
| Conc. | A | | | | | | | | | |
| | B | | | | | | | | | |
| | C | | | | | | | | | |
| | D | | | | | | | | | |
| Conc | A | | | | | | | | | |
| | B | | | | | | | | | |
| | C | | | | | | | | | |
| | D | | | | | | | | | |
| TIME | | 1210 | 1350 | 1140 | 1055 | 1320 | 1200 | 1250 | 1235 | |
| TECHNICIAN | | MAF | MAF | AA | AA | AA | MAF | MAF | MAF | |

## FISH LARVAL SURVIVAL & GROWTH TEST

| | | | |
|---|---|---|---|
| Test ID: | Allen Family Foods, Inc. | Dilution water type: | 80 mg/L MHW |
| NPDES # | DE0000299 | Organism Type: | Pimephales promelas |
| Outfall # | 001 | Test Type: | Survival & Growth |
| Date/Time Collected | 4/26/04-4/27/04; 09:00-09:00 | Age of Organisms: | 20 hours hours |
| Sample Type: | composite | Test Volume: | 250 mls |
| Sampler: | ADC/NDC/MAF | Chamber size: | 400 mls |
| Date/Time Started: | 4/28/04 1210 | Date /Time Ended: | 5/5/04 1230 |
| Date Weighed: | 5/5/04 | Temperature: | 17°C. |
| Technician | MAF | Time: | 6hr. |

| Conc. | Rep | Foil Wt (mg) | Foil Wt + Org. (mg) | Wt of Org. (mg) | # Org. | Mean Wt/ Org. (mg) |
|---|---|---|---|---|---|---|
| | A | 963.6 | 967.1 | 3.5 | 10 | |
| Control | B | 964.9 | 968.0 | 3.1 | 10 | |
| | C | 964.9 | 967.8 | 2.9 | 10 | |
| | D | 967.9 | 970.9 | 3.0 | 10 | |
| | A | 963.3 | 966.7 | 3.4 | 10 | |
| 100% | B | 966.1 | 969.7 | 3.6 | 10 | |
| | C | 972.9 | 975.8 | 2.9 | 10 | |
| | D | 968.5 | 971.9 | 3.4 | 10 | |
| | A | | | | 10 | |
| | B | | | | 10 | |
| | C | | | | 10 | |
| | D | | | | 10 | |
| | A | | | | 10 | |
| | B | | | | 10 | |
| | C | | | | 10 | |
| | D | | | | 10 | |
| | A | | | | 10 | |
| | B | | | | 10 | |
| | C | | | | 10 | |
| | D | | | | 10 | |
| | A | | | | 10 | |
| | B | | | | 10 | |
| | C | | | | 10 | |
| | D | | | | 10 | |

| | | | | | |
|---|---|---|---|---|---|
| Test ID: | Allen Family Foods, Inc. | Dilution water type: | 80 mg/L MHW | | |
| NPDES # | DE0000299 | Organism Type: | Pimephales promelas | | |
| Source: | 001 | Test Type: | Survival & Growth | | |
| Date/Time Collected | 4/26/04-4/27/04; 09:00-09:00 | Age of Organisms: | 20 hours | Gen. | 15th |
| Sample Type: | composite | Test Volume: | 250 | mls | |
| Sampler: | ADC/NDC/MAF | Chamber size: | 400 | mls | |
| Date/Time Started: | 4/28/04 1210 | Date /Time Ended: | 5/5/04 1230 | | |

**nfo Upon Receipt**

| | | | | | |
|---|---|---|---|---|---|
| **pH** | 7.58 | | **Dissolved Oxygen** | 9.20 | mg/L |
| **Chlorine** | <0.01 | mg/L | **Conductivity** | 762 | umhos |
| **Ammonia** | 0.11 | mg/L | **Total Alkalinity** | 101.9 | mg/L |
| **Temperature** | 0.5 | °C | **Total Hardness** | 26 | mg/L |

**Conc:** Control

| | Day 0 | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Temp Initial** | 24.5 | 24.7 | 24.5 | 25.7 | 25.6 | 25.4 | 24.9 | | | |
| **°C Final** | | 25.0 | 24.8 | 24.7 | 24.9 | 25.3 | 25.2 | 24.9 | | |
| **pH Initial** | 7.80 | 7.86 | 7.79 | 7.83 | 7.81 | 7.88 | 7.82 | | | |
| **Final** | | 7.64 | 7.75 | 7.81 | 7.86 | 7.60 | 7.47 | 7.48 | | |
| **DO Initial** | 8.5 | 8.5 | 8.5 | 8.5 | 8.4 | 8.5 | 8.5 | | | |
| **Final** | | 7.3 | 7.0 | 7.3 | 7.4 | 6.9 | 6.9 | 6.5 | | |
| **Final Replicate** | | A | B | C | D | A | B | C | | |
| **Conductivity** | 300 | 300 | 300 | 300 | 300 | 300 | 300 | | | |
| **Alkalinity mg/L** | 61.14 | 61.14 | 61.14 | 61.14 | 61.14 | 61.14 | 61.14 | | | |
| **Hardness mg/L** | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | | | |
| **Chlorine mg/L** | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | |
| **TIME** | 1200 | 1345 | 1135 | 1045 | 1325 | 1150 | 1242 | 1230 | | |
| **INITIALS** | AR | MAF | A | AR | AR | MAF | MAF | MAF | | |

**Conc:** 100%

| | Day 0 | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| **Temp Initial** | 24.9 | 25.2 | 24.4 | 24.3 | 25.8 | 25.7 | 24.7 | | | significant |
| **°C Final** | | 25.0 | 25.0 | 25.1 | 24.8 | 25.3 | 25.2 | 24.9 | | green algae |
| **pH Initial** | 7.35 | 7.56 | 7.35 | 7.34 | 7.32 | 7.35 | 7.33 | | | growth by day 6 |
| **Final** | | 7.72 | 7.71 | 7.89 | 7.89 | 7.67 | 8.56 | 8.50 | | |
| **DO Initial** | 9.0 | 8.9 | 8.9 | 8.8 | 8.9 | 8.9 | 9.0 | | | |
| **Final** | | 7.7 | 7.1 | 7.4 | 7.6 | 9.3 | 9.3 | 9.1 | | |
| **Final Replicate** | | A | B | C | D | A | B | C | | |
| **Conductivity** | 983 | 983 | 947 | 947 | 958 | 958 | 958 | | | |
| **Alkalinity mg/L** | 101.9 | 101.9 | 61.14 | 61.14 | 61.14 | 61.14 | 61.14 | | | |
| **Hardness mg/L** | 26 | 26.0 | 34.0 | 34.0 | 32.0 | 32.0 | 32.0 | | | |
| **Chlorine mg/L** | <0.01 | <0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.04 | | | |
| **TIME** | 1201 | 1346 | 1136 | 1046 | 1326 | 1157 | 1243 | 1231 | | |
| **INITIALS** | AR | MAF | A | AR | A | MAF | MAF | MAF | | |

2/9/24

## Larval Fish Growth and Survival Test-7 Day Survival

| | | | | | |
|---|---|---|---|---|---|
| Start Date: | 4/28/2004 12:10 | Test ID: | 040428App | Sample ID: | DE0000299 |
| End Date: | 5/5/2004 12:30 | Lab ID: | AES-CVLC-Aquatech Enviror | Sample Type: | OUTFALL 001 |
| Sample Date: | 4/27/2004 09:00 | Protocol: | EPA-A-EPA-821-R-02-012 | Test Species: | PP-Pimephales promelas |
| Comments: | 20 hours | | | | |

| Conc-% | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| B-Control | 0.8000 | 0.8000 | 0.8000 | 0.8000 |
| 100 | 0.7000 | 0.7000 | 0.8000 | 0.7000 |

| | | | Transform: Arcsin Square Root | | | | | Rank | 1-Tailed | Isotonic | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-% | Mean | N-Mean | Mean | Min | Max | CV% | N | Sum | Critical | Mean | N-Mean |
| B-Control | 0.8000 | 1.0000 | 1.1071 | 1.1071 | 1.1071 | 0.000 | 4 | | | 0.8000 | 1.0000 |
| 100 | 0.7250 | 0.9063 | 1.0202 | 0.9912 | 1.1071 | 5.685 | 4 | 12.00 | 11.00 | 0.7250 | 0.9063 |

| Auxiliary Tests | Statistic | Critical | Skew | Kurt |
|---|---|---|---|---|
| Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01) | 0.7064 | 0.749 | 2.0367 | 4.9 |
| Equality of variance cannot be confirmed | | | | |

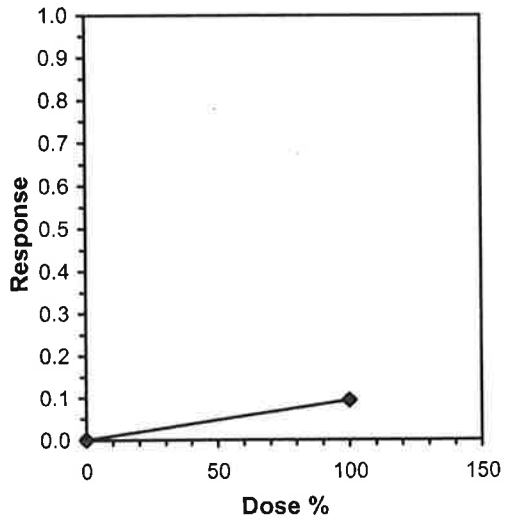
**Hypothesis Test (1-tail, 0.05)**

Wilcoxon Two-Sample Test indicates no significant differences

**Linear Interpolation (80 Resamples)**

| Point | % | SD | 95% CL(Exp) | Skew |
|---|---|---|---|---|
| IC05* | 53.333 | | | |
| IC10 | >100 | | | |
| IC15 | >100 | | | |
| IC20 | >100 | | | |
| IC25 | >100 | | | |
| IC40 | >100 | | | |
| IC50 | >100 | | | |

* indicates IC estimate less than the lowest concentration



22 of 24

## Larval Fish Growth and Survival Test-7 Day Growth

| | | | | | |
|---|---|---|---|---|---|
| Start Date: | 4/28/2004 12:10 | Test ID: | 040428App | Sample ID: | DE0000299 |
| End Date: | 5/5/2004 12:30 | Lab ID: | AES-CVLC-Aquatech Enviror | Sample Type: | OUTFALL 001 |
| Sample Date: | 4/27/2004 09:00 | Protocol: | EPA-A-EPA-821-R-02-012 | Test Species: | PP-Pimephales promelas |
| Comments: | 20 hours | | | | |

| Conc-% | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| B-Control | 0.3500 | 0.3100 | 0.2900 | 0.3000 |
| 100 | 0.3400 | 0.3600 | 0.2900 | 0.3400 |

| | | | Transform: Untransformed | | | | | 1-Tailed | | | Isotonic | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conc-% | Mean | N-Mean | Mean | Min | Max | CV% | N | t-Stat | Critical | MSD | Mean | N-Mean |
| B-Control | 0.3125 | 1.0000 | 0.3125 | 0.2900 | 0.3500 | 8.416 | 4 | | | | 0.3225 | 1.0000 |
| 100 | 0.3325 | 1.0640 | 0.3325 | 0.2900 | 0.3600 | 8.981 | 4 | -1.005 | 1.943 | 0.0387 | 0.3225 | 1.0000 |

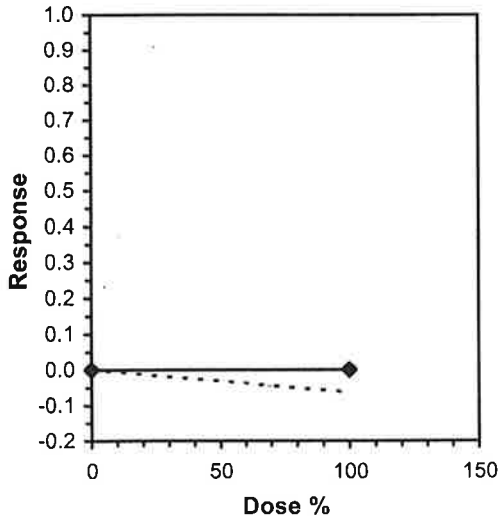
| Auxiliary Tests | Statistic | Critical | Skew | Kurt |
|---|---|---|---|---|
| Shapiro-Wilk's Test indicates normal distribution (p > 0.01) | 0.98159 | 0.749 | -0.1697 | -0.3586 |
| F-Test indicates equal variances (p = 0.84) | 1.28916 | 47.4683 | | |

**Hypothesis Test (1-tail, 0.05)**

Homoscedastic t Test indicates no significant differences

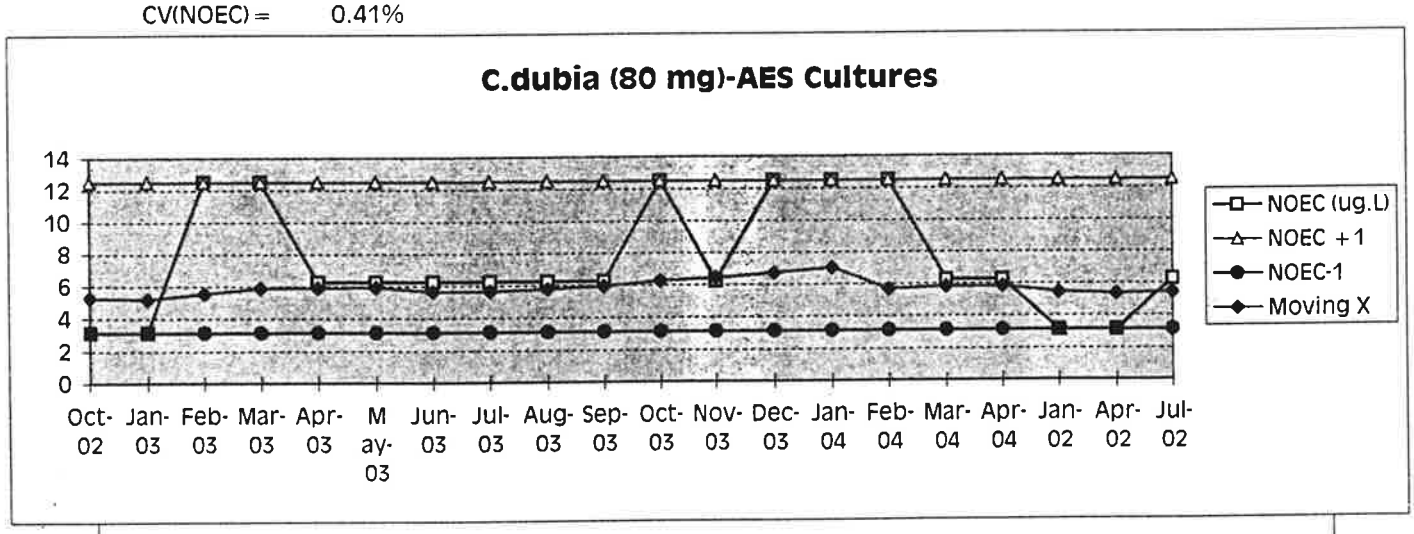
**Linear Interpolation (80 Resamples)**

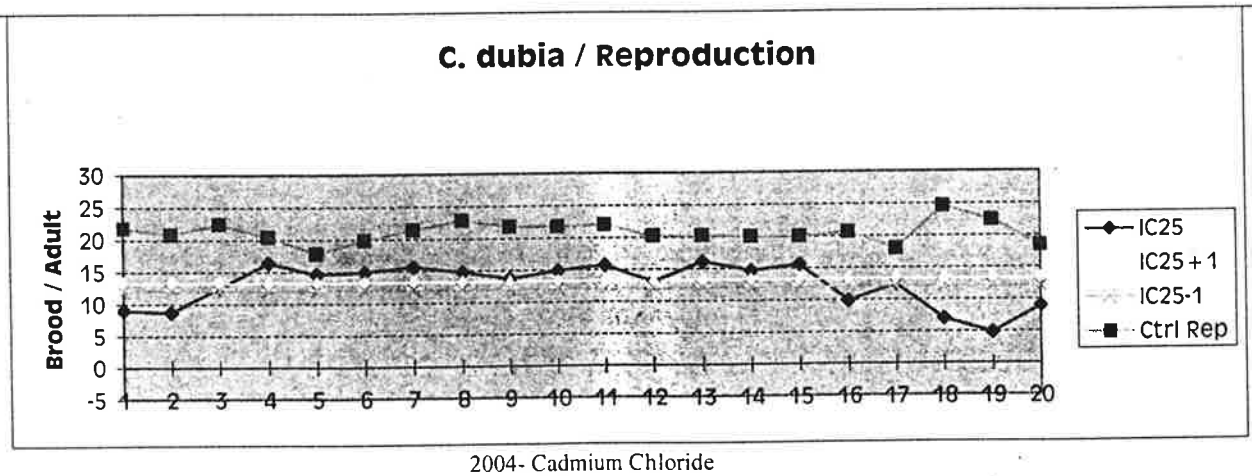
| Point | % | SD | 95% CL(Exp) | Skew |
|---|---|---|---|---|
| IC05 | >100 | | | |
| IC10 | >100 | | | |
| IC15 | >100 | | | |
| IC20 | >100 | | | |
| IC25 | >100 | | | |
| IC40 | >100 | | | |
| IC50 | >100 | | | |



7 day Chronic Renewal
EPA-821-R-02-013

| Dates | Sequence | NOEC (ug.L) | NOEC +1 | NOEC-1 | Moving X | IC25 | ICSd | MX Sd | IC25+1 | IC25-1 |
|---|---|---|---|---|---|---|---|---|---|---|
| 10/14/2002 | Oct-02 | 3.125 | 12.5 | 3.125 | 5.27 | 8.96 | 0.71 | 0.02 | 13.20 | 12.05 |
| 1/20/2003 | Jan-03 | 3.125 | 12.5 | 3.125 | 5.17 | 8.65 | 0.83 | 0.02 | 13.20 | 12.05 |
| 2/3/2003 | Feb-03 | 12.5 | 12.5 | 3.125 | 5.53 | 12.5 | 0.00 | 0.00 | 13.20 | 12.05 |
| 3/11/2003 | Mar-03 | 12.5 | 12.5 | 3.125 | 5.88 | 16.31 | 0.71 | 0.00 | 13.20 | 12.05 |
| 3/31/2003 | Apr-03 | 6.25 | 12.5 | 3.125 | 5.9 | 14.52 | 0.19 | 0.00 | 13.20 | 12.05 |
| 5/9/2003 | May-03 | 6.25 | 12.5 | 3.125 | 5.92 | 14.83 | 0.26 | 0.00 | 13.20 | 12.05 |
| 6/8/2003 | Jun-03 | 6.25 | 12.5 | 3.125 | 5.63 | 15.63 | 0.47 | 0.00 | 13.20 | 12.05 |
| 7/1/2003 | Jul-03 | 6.25 | 12.5 | 3.125 | 5.63 | 14.75 | 0.24 | 0.00 | 13.20 | 12.05 |
| 8/4/2003 | Aug-03 | 6.25 | 12.5 | 3.125 | 5.78 | 13.67 | 0.06 | 0.00 | 13.20 | 12.05 |
| 9/11/2003 | Sep-03 | 6.25 | 12.5 | 3.125 | 5.94 | 14.83 | 0.26 | 0.00 | 13.20 | 12.05 |
| 10/2/2003 | Oct-03 | 12.5 | 12.5 | 3.125 | 6.25 | 15.66 | 0.48 | 0.01 | 13.20 | 12.05 |
| 11/1/2003 | Nov-03 | 6.25 | 12.5 | 3.125 | 6.41 | 13.07 | 0.01 | 0.02 | 13.20 | 12.05 |
| 12/3/2003 | Dec-03 | 12.5 | 12.5 | 3.125 | 6.72 | 16.07 | 0.62 | 0.04 | 13.20 | 12.05 |
| 1/12/2004 | Jan-04 | 12.5 | 12.5 | 3.125 | 7.03 | 14.66 | 0.22 | 0.08 | 13.20 | 12.05 |
| 2/9/2004 | Feb-04 | 12.5 | 12.5 | 3.125 | 5.68 | 15.52 | 0.44 | 0.00 | 13.20 | 12.05 |
| 3/2/2004 | Mar-04 | 6.25 | 12.5 | 3.125 | 5.81 | 9.87 | 0.40 | 0.00 | 13.20 | 12.05 |
| 4/6/2004 | Apr-04 | 6.25 | 12.5 | 3.125 | 5.82 | 12.36 | 0.00 | 0.00 | 13.20 | 12.05 |
| 1/15/2002 | Jan-02 | 3.125 | 12.5 | 3.125 | 5.46 | 6.99 | 1.67 | 0.01 | 13.20 | 12.05 |
| 4/24/2002 | Apr-02 | 3.125 | 12.5 | 3.125 | 5.34 | 4.8 | 3.23 | 0.01 | 13.20 | 12.05 |
| 7/9/2002 | Jul-02 | 6.25 | 12.5 | 3.125 | 5.39 | 8.91 | 0.73 | 0.01 | 13.20 | 12.05 |
| | CV(IC25) = | 4.56% | 7.50 | mean calc | 5.83 | 12.63 | 0.58 | 0.02 | 0.05 | |
| | CV(NOEC) = | 0.41% | | | | | | | | |

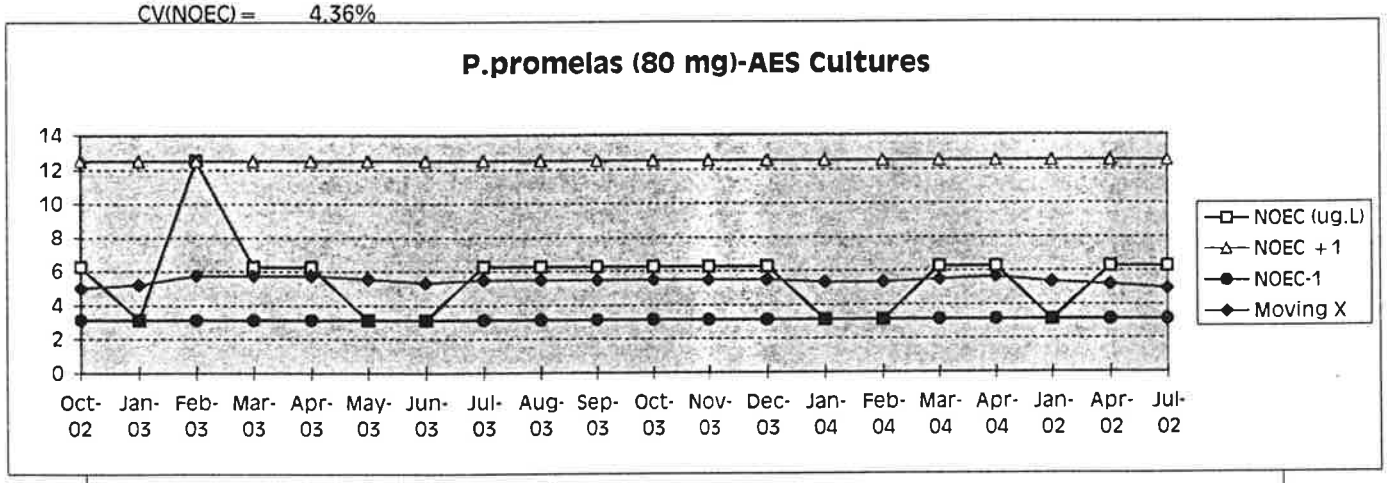


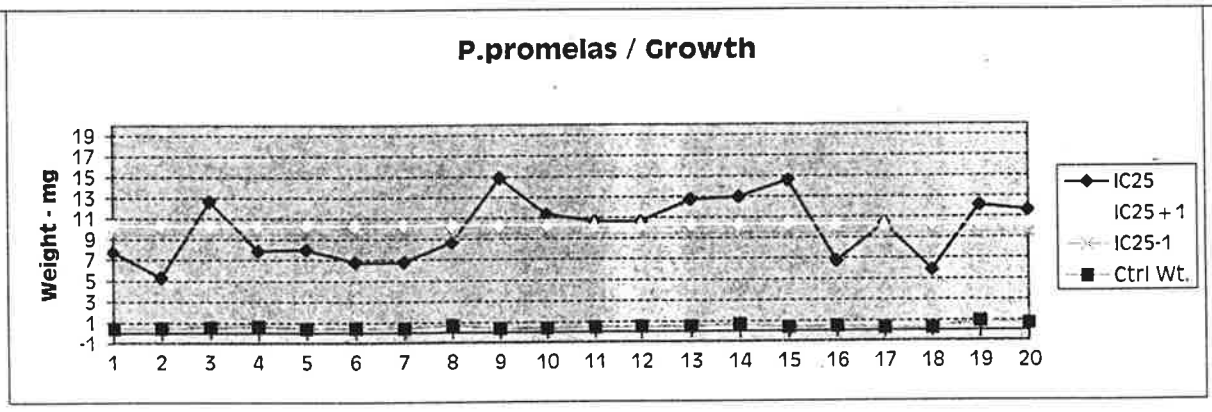




2004- Cadmium Chloride
Ceriodaphnia dubia (80 mg)
AES Inhouse Cultures
Moderately Hard Reconstituted Water

7 day Chronic Renewal
EPA-821-R-02-013

| Dates | Sequence | NOEC (ug.L) | NOEC +1 | NOEC-1 | Moving X | IC25 | ICSD | MXSD | IC25+1 | IC25-1 | Ctrl Wt. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 10/14/2002 | Oct-02 | 6.25 | 12.5 | 3.125 | 5 | 7.69 | 0.25 | 0.02 | 10.32 | 9.45 | 0.43 |
| 1/20/2003 | Jan-03 | 3.125 | 12.5 | 3.125 | 5.21 | 5.26 | 1.13 | 0.01 | 10.32 | 9.45 | 0.443 |
| 2/3/2003 | Feb-03 | 12.5 | 12.5 | 3.125 | 5.73 | 12.64 | 0.40 | 0.00 | 10.32 | 9.45 | 0.498 |
| 3/11/2003 | Mar-03 | 6.25 | 12.5 | 3.125 | 5.73 | 7.86 | 0.22 | 0.00 | 10.32 | 9.45 | 0.598 |
| 3/31/2003 | Apr-03 | 6.25 | 12.5 | 3.125 | 5.73 | 7.96 | 0.20 | 0.00 | 10.32 | 9.45 | 0.425 |
| 5/9/2003 | May-03 | 3.125 | 12.5 | 3.125 | 5.53 | 6.73 | 0.52 | 0.00 | 10.32 | 9.45 | 0.453 |
| 6/8/2003 | Jun-03 | 3.125 | 12.5 | 3.125 | 5.31 | 6.72 | 0.53 | 0.01 | 10.32 | 9.45 | 0.412 |
| 7/1/2003 | Jul-03 | 6.25 | 12.5 | 3.125 | 5.47 | 8.66 | 0.08 | 0.00 | 10.32 | 9.45 | 0.675 |
| 8/4/2003 | Aug-03 | 6.25 | 12.5 | 3.125 | 5.47 | 14.83 | 1.29 | 0.00 | 10.32 | 9.45 | 0.36 |
| 9/11/2003 | Sep-03 | 6.25 | 12.5 | 3.125 | 5.47 | 11.32 | 0.11 | 0.00 | 10.32 | 9.45 | 0.383 |
| 10/2/2003 | Oct-03 | 6.25 | 12.5 | 3.125 | 5.47 | 10.65 | 0.03 | 0.00 | 10.32 | 9.45 | 0.465 |
| 11/1/2003 | Nov-03 | 6.25 | 12.5 | 3.125 | 5.47 | 10.61 | 0.03 | 0.00 | 10.32 | 9.45 | 0.4725 |
| 12/3/2003 | Dec-03 | 6.25 | 12.5 | 3.125 | 5.47 | 12.73 | 0.43 | 0.00 | 10.32 | 9.45 | 0.4775 |
| 1/14/2004 | Jan-04 | 3.125 | 12.5 | 3.125 | 5.31 | 12.98 | 0.50 | 0.01 | 10.32 | 9.45 | 0.66 |
| 2/9/2004 | Feb-04 | 3.125 | 12.5 | 3.125 | 5.31 | 14.56 | 1.15 | 0.01 | 10.32 | 9.45 | 0.35 |
| 3/2/2004 | Mar-04 | 6.25 | 12.5 | 3.125 | 5.47 | 6.67 | 0.54 | 0.00 | 10.32 | 9.45 | 0.447 |
| 4/6/2004 | Apr-04 | 6.25 | 12.5 | 3.125 | 5.63 | 10.34 | 0.01 | 0.00 | 10.32 | 9.45 | 0.2975 |
| 1/15/2002 | Jan-02 | 3.125 | 12.5 | 3.125 | 5.31 | 5.8 | 0.88 | 0.01 | 10.32 | 9.45 | 0.27 |
| 4/24/2002 | Apr-02 | 6.25 | 12.5 | 3.125 | 5.16 | 12.09 | 0.26 | 0.01 | 10.32 | 9.45 | 0.93 |
| 7/9/2002 | Jul-02 | 6.25 | 12.5 | 3.125 | 4.93 | 11.62 | 0.16 | 0.03 | 10.32 | 9.45 | 0.665 |
| | CV(IC25) = | 4.40% | | mean calc | 5.63 | 9.89 | 0.44 | 0.25 | 0.49 | | |
| | CV(NOEC) = | 4.36% | | | | | | | | | |




2004 - Cadmium Chloride
Pimephales promelas (80 mg)
AES Inhouse Cultures
Moderately Hard Reconstituted Water